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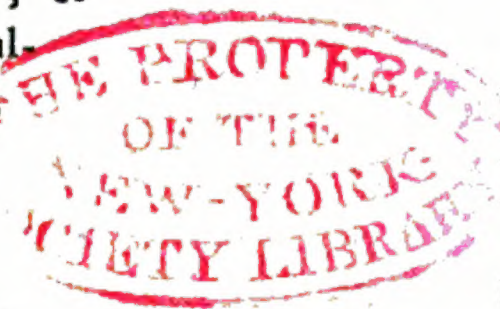




ANNALS  
OF  
AGRICULTURE,  
AND  
OTHER USEFUL ARTS.

COLLECTED AND PUBLISHED BY  
ARTHUR YOUNG, Esq. F.R.S.

Honorary Member of the Societies of DUBLIN, BATH, YORK,  
SALFORD, and ODIHAM; the Philosophical and Literary  
Society of MANCHESTER, the Œconomical Society of  
BERNE; the Physical Society of ZURICH; the Palatine  
Academy of Agriculture at MANHEIM; the Imperial  
Œconomical Society established at PETERSBURGH;  
And corresponding Member of the Royal  
Society of Agriculture at PARIS; of  
the Royal Academy of Agriculture at FLORENCE; and  
of the Patriotic Society  
at MILAN.



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V O L. X.

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A N N A L S  
O F  
A G R I C U L T U R E.

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W O O L A C T.  
TO THE WOOL GROWERS OF  
GREAT BRITAIN.

GENTLEMEN,

THE noble and exemplary stand made against the most dangerous attempt of its nature, that ever was offered to Parliament, calls upon one in whom the growers of a great county were pleased on that occasion, to repose their confidence, to venture a few observations on the progress and event of the wool bill.

That stand was made by two counties only.—United with the gentlemen of Lincoln, no activity, no exertions, no endeavours were wanting to rouse the landed interest from their strange apathy, into attention to the nature of the attack that was making against them—but in vain. Upon

VOL. X. No. 55.

B

the



the question of a superannuated captain, which was made a business of party, near 400 members were told in the House of Commons ; and, within a few days after, that of wool was dismissed for want of 40 to constitute a house. In the Lords one of the principal divisions was decided by 13 to 11.

To dilate at present on the measure, would in the space of this letter be impossible ; I shall fully explain it in this work. Be it sufficient now to declare, that ministry supported and carried, absolutely in the teeth of fact, argument, and common sense ; a measure by which all the farmers in the kingdom, who keep sheep, are stigmatized as guilty of crimes, without proof, and even without suspicion—are subjected to severities unknown in the revenue laws—shackled with vexatious regulations that have no object but to tempt informers to profit of the innocent breach of them—and harrassed with restrictions as senseless as they are new. That this system of severity, this code of tyranny, was brought forward as the cure of evils, proved to have no existence ; and expressly asserted to be a necessary favour to the manufacturers, to enable them to lower the high price of wool, which *high* price, is cent. per cent. *lower* than in every country around us.

When it is considered that the farmers of this kingdom are possessors of a property of near 100 millions sterling, will it not move your astonish-  
ment

ment to find that propositions much worse than these were received, and passed by one House, and that THESE were adopted by another ! Gentlemen, it is an unhappy truth to tell you—that you are of no more weight and consideration in the eye of the government of this country, than the sheep and cattle of your fields. Your landlords act as if they thought they had a right to consider you as the *villains* of past centuries ; and to involve your interests in others which they have the indifference to neglect, or the rapacity to transfer : Whilst the immediate supporters of administration, looking only at those, whose parliamentary influence may be formidable, or useful, freely declare, that to encourage the manufacture is the only national object—and that you—(mark the words, for they were both used and applauded in Parliament)—that you were ungrateful to the manufacturers, for not seeing that the interest of the one was the interest of the other, and that the cheaper you gave them the wool, so much the better for you the grower !—from which by clear analogy this was deducible—that five years ago, when many of you were ruined by the low price, when your wives and children were starving, and in rags, and some of you in prison, or at day labour—that even then you were guilty of this hideous crime of ingratitude to your best friends, for not carrying your patriotism further to relieve the deficiencies of their trade, by

giving that wool for nothing, for which you presumed to receive some price: Nor let it be forgotten, that the manufacturers bringing forward their bill of pains and penalties on all the wool growers of England, which was of a complexion that the House of Commons even would not endure, while they could pretend a declension only of a single fabric—and introducing into it, clauses totally distinct and unconnected with the ostensible object of the bill, were so far from being condemned as kindling jealousies between the two great interests of the kingdom, that they were declared deserving of the highest gratitude; and condemnation pointed singly at those who had instigated an opposition to the mild and brotherly dispensations of a measure so well calculated to preserve a desirable harmony between those interests.

Gentlemen, these monstrous absurdities, which should seem the fabric of lunacy—the visionary texture of some maniac brain—were received as political truths, fit for the government of a great people. You, and your interests, were trampled under feet, with all the contempt that inattention marks, or negligence implies: and if any circumstance can mark to you the mortifying insignificance of your unrepresented, unprotected situation, it is, that opposition knowing the part taken by administration, thought that more popularity was to be lost by opposing the manufacturers, than  
credit

credit gained from attempting your defence, and accordingly kept aloof in both Houses and left you to your fate\*.

If you demand the reason for this treatment, seek it in yourselves. Long and repeatedly did I dwell in this work on the injurious attack that was forming against you. I explained the various bills brought forward, shewed that the real intent of them was to sink the price of wool, and that all the growers of the kingdom, ought to combine, and petition by counties against them. Five only stirred; and, of these, two withdrew their opposition, whether to their honour or not, let posterity judge! If there is such indifference among yourselves; if there is such a total want of friends in higher ranks of life to advise and stimulate you to your true interests—what wonder that government on the one hand, and the leaders of opposition on the other, should overlook your whole body, as too ignorant to know an injury, or too unfeeling to resent it.

But the bill is passed; and close upon the heels of it another to prohibit the export of hay, brought in by a member for the city of London, whose constituents think themselves justified in restraining the prices of your products, by acts of parliament. Seeing the tameness of the landed interest

\* The Duke of Portland was the only one who declared and voted against the bill.

in respect to wool, they immediately come forward and regulate hay\*. It is not long since they attempted the same with butcher's meat : No doubt but you will have these attacks from various quarters, again and again, while you remain in your present situation.

Such is the evil which is daily making its progress—the remedy is in your own hands, and will prove infallible whenever with one spirit resorted to. A proposition will publicly be made to you, which, if embraced and carried into execution, will secure you from insults of this nature, and reinstate you in those rights, which, on various occasions, you have been so injuriously deprived of. In the mean time your object is to become acquainted with your real situation—and to endeavour by every means to ascertain that great leading truth, which is the polar star of your enquiries, that *the export of all the products of the earth ought to be legal ;* REGULATED, but LEGAL. The ignorance, timidity, and indecision of friends on this point, were as hurtful to your interests on the late occasion, as the point blank attack of the manufacturers themselves.

In a word—all will depend on yourselves. If with a depression of soul, as low as the blow you

\* Not a word was said against it, but by Sir Peter Burrell and Sir James Johnstone.



have received, was meant to bring you—If with a meanness of mind that levels you to the depravity of the situation these violent measures tend to place you in,—you sit content to see your business shackled with restrictions—your ordinary occupations clogged with prohibitions—your dearest privileges invaded—and your property held out as the right reward of a band of profligate informers.—If such injuries are loaded on you, not for the great purposes of national defence, or national revenue; but on the contrary to give force to commercial jealousy, and efficiency to avarice—To wrest from you a premium for fabrics, prosperous in complaint, and flourishing in discontent—To seize that by violence from you, which if wanted, ought to issue from the public purse.—If such is the motive and object of these oppressions—do you not see the poison in which the shaft is dipt, now launched at your rights? Do you not feel the insult that points the injury? In such a moment, insignificance will attend your silence—and the meditation of new injuries flow from your repose. Sensibility to feel, and activity to repel the mischief, are the virtues called for. There are situations in which acquiescence is guilt, and content, infamy.

Should prudence hold the hand of power, and restrain the full execution of this bill—be not deceived by a forbearance, which delays the attack

only to ensure its effects: the act that gives the authority to oppress, ratifies the oppression—You would owe your safety, not to law, but to connivance, and forget not the words of a great orator,—words of equal truth and elegance—“connivance is the relaxation of tyranny, not the definition of freedom.”—

I am, &c.

ARTHUR YOUNG.

London, June 20, 1788.

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### THE EDITOR TO THE READER.

**T**HE wool bill is a subject which so deeply concerns the whole landed interest, that too much attention cannot be paid to it: The facts and arguments on both sides, which preceded the bills passing, are doubly curious; first, as shewing the grounds on which acts are passed at the end of a session, when men, jaded with all sorts of business, are fled, or hurrying to the country; and secondly, because this business will undoubtedly come again upon the carpet, and consequently the minds of men ought to be as well prepared as possible, to meet the discussion. During a residence in London, of nine weeks, with no other business  
 whatever

whatever for my object, I attended every day its passage through both Houses; and I had necessarily an opportunity of remarking that the particulars given in the news-papers, were either so short and negligent, or so grossly erroneous, that I found my own minutes possessed a value, which at first, I did not expect to attend them: The insertion, though voluminous, will I trust be considered, by the appropriated readers of this work, as obviously proper, and strictly within its plan.

A. Y.

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## PROCEEDINGS OF THE COMMONS ON THE WOOL-BILL.

April 22.

**T**HE Honourable Mr. Erskine council for the Lincoln and Suffolk petition, against the Bill.

**H**eads of his pleading.—He remarked that a very different degree of attention was due to a bill brought in by a single member at the suggestion of interested men without doors, ending to the reversal and change of a great mass of existing laws; to that which would have been due to it, introduced as it ought to have been, by those to whose care the legislature entrusts these subjects. That the present bill was  
the



the result of no enlarged or liberal enquiry set on foot for the purpose of ascertaining the truth, and discovering how far the present laws were, or were not deficient. These laws amounted to above an hundred statutes, and were above a century old, it must strike every one, that an attempt at once to repeal the whole, in order to substitute one sweeping act to bear upon such a multitude of unexplored and unknown points, without being preceded by such a great and general enquiry, not undertaken by men immediately interested, but by others, in whom public confidence was lodged, was a proceeding that seemed fraught with madness and absurdity. That the present bill which struck at all these laws in so rash a manner, had an origin that would astonish posterity. A body of men purporting to be delegates from the several wool-len fabrics, but whose constitution, if thoroughly enquired into, would be found to be as extraordinary, as their proceedings were collected by a Mr. Anstie, who suddenly becomes their oracle, and takes upon him to bring forward at different periods, different bills, for the present purpose; one of those bills was such a mass of severity and nonsense, that though ordered to be printed by the House, and dispersed, yet it was abandoned by the patrons, and heard of no more: It was fairly attacked without doors, and met with so general an abhorrence and contempt, that the very fathers  
of

of it were ashamed of their production, and not one was afterwards found to own it. The present bill comes from the same origin; and when this gentleman (Mr. Anstie) comes forward from his fabric, or his counting-house, to manufacture our laws, it would not be irrelative to the question, to enquire, whether he knows what those laws are, which he thus wildly attempts to overturn, in order to establish his own indigested ideas and ignorance in their place? That in such an enquiry, a circumstance would be found, which must penetrate every one with astonishment, that this person is actually so totally ignorant of those laws, which he asserts to be insufficient, and seeks to overthrow, that he declared, in the committee above stairs, he did not know such a law existed, as that which forfeits the ship and cargo concerned in the export of wool. That the passage alluded to is at p. 5 of the report; being asked *Do not you know that upon the information of the captain who was seized, that those vessels upon their return were forfeited?* His answer, I DO NOT, I DO NOT KNOW THAT ANY SUCH LAW EXISTS. That this law is the true pillar and support of all the rest, its efficacy is greater and more effectual than every other taken together; the value of the ship is so considerable, and not only so, but the goods of the captain and of the crew are forfeited—the profit of  
smuggling

smuggling so bulky a commodity as that of wool, can rarely induce so enormous a hazard. That as the author of the present bill knew nothing of this main spring, and guard of all the other laws, he might be safely pronounced so utterly unqualified for the office of a lawgiver, as to vitiate the entire origin of the present proposition—nor would he probably have brought it forward, if he had known what were the laws already in being.

That the great argument which had been brought forward in support of coming to Parliament was the pretended present magnitude of smuggling. That Mr. Anstie had produced an account to the committee, coming from we know not who—gained we know not how—and upon an authority of which we are equally ignorant, but purporting to be extracts from French custom-house registers. Of every particular of this account we are ignorant, because the man is not produced—his name unknown—his authorities concealed—but there is his return, and you may make what you can of it.—That this account makes in union with all the others adduced from authority something similar, and including every possible computation about 4000 packs per annum imported into France. That however witnesses will be called to the bar, to shew that the real fact did not amount for several years to more than 1100 packs, and since the commercial treaty to no more than

than 480. That these witnesses will produce the identical registers correctly copied, which Mr. Anstie's unknown messenger pretended to transcribe. That he should call Sir Joseph Banks to this point, a gentleman at the head of the sciences in this country, and of a reputation that placed him above all idea of intention or inclination to mislead the House: A man whose active and well employed life, classed him high in the annals of his country, to instruct and enlighten which, he had passed with all the spirit of enterprize through every climate of the globe, and ventured his life in the promotion of the sciences he revered. That he should also call another gentleman, Mr. Young, to the bar, who had been for years employed in the steadiest and deepest researches in these enquiries, and whose perfect knowledge of the subjects he would speak to, was undisputed—who had travelled lately through France, and received much information, very valuable on the points in question—a person inheriting some portion of the talents of the great poet his father\*. That these persons would produce authority to shew the export, no more than 1100 packs. That however upon this question of the quantity he was not solicitous to dwell, because if it was taken at that which the report of the committee stated, which was 4000;

\* Mr. Erskine was interrupted, to correct the error of giving Mr. Young a poet for his father.

or even upon the idea, totally unfounded of Mr. Anstie, that it was 13000; in either case it shewed such a wonderful efficiency of the laws already in being as could not be produced in any similar case whatever. The difference of price, between England and France, he could state correctly at cent. per cent. and the whole growth of England at 600,000 packs: That with such a vast temptation to illicit trade in the difference of the price, how surprisingly effective must the laws be, that of 600,000 packs, keeps all at home but the very small and trifling portion of 13000. That it would be proper to apply to the registers of the revenue boards, and examine if similar success attend the endeavour to stop illicit transactions in any other case whatever—and to ask the commissioners of those boards, if with such temptation to smuggle, they would not be perfectly content with such a degree of efficiency in the law.

The learned council varied this argument, and set it in many lights, urging it very forcibly and successfully.

He further contended, that the evidence which had been brought in the committee, to prove the export of live sheep, was much of the same complexion as that for the export of 13000 packs of wool; Mr. Jacob Thomas Speidel, a Blackwell-Hall, factor, is the person who goes to France to  
make



make discoveries respecting the breeds of sheep! and he makes some rare ones, for seeing some sheep at a mile distance, in an evening, he knew them to be English, by the assistance of a glass—That such eyes and glasses were libels on Mr. Herchel, who had brought the moon so near us—yet such was the authority, proving the sheep in question to be English.

Mr. Erskine observed, that the clauses of the bill were so numerous and so interwoven with the principle, that though the House was not in committee, it would be necessary to examine them, for to separate them from the principle was impossible; he entered particularly into the severities of the punishments—the summary jurisdiction given to justices—the power to stop, arrest, and detain persons, who on conviction would be liable to punishment under the bill; and the justices bound to hear evidence only on the part of the accuser—and this unheard of power given without suspicion to be stated as necessary—without information lodged—without bail to be admitted—and without jury to be granted. He explained the abominable severity of such a proposition, with great force of argument, and eloquence of expression. He went also through other of the clauses, and upon the whole pleaded with his accustomed force and success.

Arthur

Arthur Young, Esquire, called in, and examined—deposed, That he had been lately in France, and made many enquiries concerning the wools of that kingdom. He travelled near 3,000 miles across France in several directions, and made those enquiries about the wools of the countries he passed through—That he found they had a great deal of wool, much superior to any he had seen in England, particularly of clothing or short wool—also in many provinces a great deal of combing or long wool, of a good quality, though not superior, and no general want at all.

That he made enquiries at Lisle, Amiens, Abbeville, and Beauvais, upon the French manufactures working up their woollen goods with English wool; and they assured him that there were various species of goods, in which long combing wool was necessary, as is very well known, which wool they got from some of their own provinces—from Holland, Flanders, Germany, and other countries; but no peculiar necessity for English wool in any one manufacture they possessed; and that if the exportation of wool from England was absolutely and totally put an end to, none of their fabrics would stop on that account. That in these places infinitely the largest proportion of what English wool goes to France is used  $\frac{1}{8}$ ths, speaking generally.

That

That at Calais, persons of the first respectability assured him that none at all was imported. That at Dunkirk and Boulogne there were certainly small quantities of English wool imported, but the quantity inconsiderable.

That the French are not desirous of obtaining English wool—the smuggler is certainly very desirous of supplying them, because the difference of price is a great temptation; but the French import wool from a great variety of countries, and among the rest a small quantity from England.

That, in relation to the difference of price between French and English wool of nearly the same quality, there is a very peculiar difficulty in stating the price of wool in France—it is sold washed or unwashed—in much the greater part of the kingdom it is sold unwashed; and the House may judge how difficult it is to ascertain the price, when they are informed that sheep are constantly shut up in stables every night; and for many nights previous to shearing, water in many instances is thrown on their dung, which has been accumulating for half a year, in order to saturate the fleece like a sponge, with all sorts of impurities.

That the price of wool, washed and unwashed, in France, was, on an average, about two guineas English a tod; and the price of the same species of wool unwashed 16s. 11d. a tod, which, by the



deduction, owing to the circumstances before mentioned, equals 2l. 10s. washed.

That the price of combing wool in Flanders, was about 1l. 12s. a tod: At the same time in England, the average price of English wool was, combing wool at 17s. 6d. per tod, and clothing wool at 1l. 3s. 6d.

That he met with extraordinary fine cloths of the manufacture of Louviers and Abbeville, others of a very different texture, at Carcassone in Languedoc; but that there were any cloths which *peculiarly* rivalled the English, he was in doubt, from the difficulty of comparing them. From conversation at the four towns he named before, on the operation of the commercial treaty, he apprehended the rivalry was very weak indeed.

That as soon as he saw the report of the committee appointed to consider that business, he wrote to Calais, to know what was the import of wool on the Custom-house books there for the year 1783; and received for answer what, with the permission of the House, he would read.

Translation of an extract of a letter, dated Calais,  
29th March, 1788.

‘ Calais, 29th March, 1788.

‘ SIR,

‘ ABSENCE has prevented my sooner answering the letter which you did me the honour of writing. Since my return, I have  
‘ done

‘ done what is necessary for enabling me to satisfy the enquires you make.

‘ I have verified, and I can certify to you, that since the year 1782 there has not been imported any English wool from England, nor have we received any cargoes of that commodity, except of a Spanish ship wrecked upon our coast, which was publicly sold by the officers of our Admiralty. Neither the registers, nor the officers of the Customs of Calais, can give any other information relative to wool unmanufactured since that time in our port. I know not if the smuggling ships have carried it to Boulogne, but I doubt if it is so, and whether the officers of the Customs were authorized to give an extract of their registers. Our own wools begin to perfect themselves, to such a degree, as to make us think, that the difference between them and yours of England is not great enough in the price, to encourage the risk of punishment, that is pronounced against that species of commerce, &c.

De MOURON.

‘ To Arthur Young, Esq.’

Then the witness delivered in the said extract, together with the original letter, in the French language. That at the same time he wrote to Paris, desiring a friend there to examine the register of the importation and exportation trade, touching

the importation of wool from England in certain years. Then the witness read an extract of a letter, being his friend's answer to that request, as follows:

‘ Dear S I R,

‘ Paris, 30th March.

‘ Y O U must have been mistaken about the  
 ‘ report of the wool committee;—surely your  
 ‘ wool-men cannot state the import of English  
 ‘ wool into France, such as you tell to me by  
 ‘ your last that they do,—they could not have  
 ‘ been deceived so grossly; and as they would  
 ‘ ask for some information in France, the least  
 ‘ manufacturer would have undeceived them;  
 ‘ on the other hand, I am too well acquainted  
 ‘ with the liberal principles of your merchants  
 ‘ and tradesmen in general, to believe that they  
 ‘ would give to the world, facts so utterly false:  
 ‘ You will judge of the falshood of those facts  
 ‘ by the following—I transmit to you the true  
 ‘ account of the English wool imported at the  
 ‘ French ports, stated by your letter; and in  
 ‘ order to avoid any misunderstanding, I tran-  
 ‘ scribe the imports such as the report is said to  
 ‘ give them, and by each article I state the  
 ‘ true accounts.’

Imports, such as stated  
by the report of the  
wool committee.

True accounts of  
the same years.

	A T	S T.	M A L O.	
In 1783	—	127,578 lb.	—	27,000 lb.
1784	—	109,493	—	33,000
1785	—	125,608	—	29,000
1786	—	123,626	—	28,000

# A G R I C U L T U R E. 21

## AT THE PORT OF LEGUE'.

In 1783	—	100,494 lb.	—	781 lb.
1784	—	132,436	—	3,000
1785	—	87,627	—	1,000
1786	—	67,854	—	4,000

## A T G R A N V I L L E.

In 1787	—	201,859 lb.	—	2,200 lb.
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## A T S T. V A L L E R Y.

In 1787	—	159,571 lb.	—	Nothing, that is, not $\frac{1}{2}$ an oz.
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‘ You may depend upon this information, and  
 ‘ be assured that I would not run the least chance  
 ‘ to mislead you. The statement of your wool-  
 ‘ men, and which I cannot believe, would have  
 ‘ been made at random, and I should not be so  
 ‘ positive, if I was not perfectly sure of my  
 ‘ assertions. You tell me, that the wool-men  
 ‘ have sent over a man to France, to examine  
 ‘ our Custom-house books—This is rather more  
 ‘ than strange; for I do not presume that an  
 ‘ English Custom officer would give his books  
 ‘ to survey to a French, or any foreigner; but  
 ‘ as money would go a long while, I would  
 ‘ perhaps, hesitate about such a fact, though  
 ‘ very improbable, since several officers ought  
 ‘ to be bribed in different places, was not the  

C 3
‘ information

‘ information which I give to you by this letter  
 ‘ a copy taken from the Custom-house books.  
 ‘ The fact itself therefore is no more true than  
 ‘ a travel in the moon, and indeed is very little  
 ‘ more probable. A man has been sent over—  
 ‘ this may be true or not; but that man has  
 ‘ been strangely abused, and has very ill em-  
 ‘ ployed his money—but that is still very strange,  
 ‘ because your tradesmen are men of sense and  
 ‘ caution, who would have chosen an able and  
 ‘ honest man. In a word, as in a thousand, you  
 ‘ may be positive, and affirm with certainty,  
 ‘ that the imports of wool from England into  
 ‘ France, stated by the wool committee, are  
 ‘ not true, and must be reduced to the quanti-  
 ‘ ties stated by me. If you want any other in-  
 ‘ formation, do write to me, and you will be  
 ‘ supplied instantly, to my best abilities and  
 ‘ power; you must know, that never you can  
 ‘ give too many commands to

Your friend, &c.

De LAZOWSKI.

‘ It is very true, that the entries in our Cus-  
 ‘ tom-house are under the name of *Poil de Bœuf*,  
 ‘ without undername of wool,—this is an old  
 ‘ usage, I do not know upon what ground, but  
 ‘ that signifies nothing, because the imports  
 ‘ which I send to you are all the imports of wool  
 ‘ entered, either under the name of *Poil de Bœuf*,  
 ‘ or



‘ or under the name of wool, which happens  
‘ sometimes.

‘ To Arthur Young, Esquire.’

Then the witness delivered in the said letter, and stated it to be authentic information copied from the register; and desired leave to say, that the writer is very respectable, is known to many gentlemen of this House, and of the other House of Parliament—having resided in England near two years.

That there is no wool imported into France which is not entered in the Custom-house books. It being impossible, because it is contraband, and forfeited, if not entered at the Custom-house; and the duty is so extremely small, that it is merely for regulation.

April 23.

THE counsel for the petitioners proceeded in their evidence.

Sir Joseph Banks, Bart. called in, and examined.

That he had taken pains, by correspondence, to procure an account of the quantity of wool exported to France.

That the paper he produced was extracted from the Bureau General de la Balance du Commerce, an office similar in its nature to that of the inspector general of imports and exports in the Custom-

house here, from whose office the commercial intelligence applied for by this House is obtained. That it was sent by a correspondent, who is one of the Royal Academy of Sciences at Paris, a man on whose sagacity he can sufficiently rely, to believe that he has not been deceived in its authenticity, and in whose honour he put sufficient trust to be assured he had not deceived him. That under the impression of what he stated to the House he delivers the paper, believing it to be a true account of the quantity of British wool imported for six years: By which it appears, that the annual average amount of wool, imported into France for five years, from 1782 to 1786 inclusive, was 1100 packs;—in the year of the ratification of the commercial treaty, it sunk to 480 packs; and that the paper is made up from the official intelligence which the Bureau General has from the different Custom-houses in France.





# BUREAU GENE

## Etat des Laines impo

<i>Années.</i>	<i>Espèce de Laine.</i>	<i>uation.</i>
1782	Laine en Toison	ion en 1787,
	Laine peignée	portation en
	Laine filée	Angleterre se
1783	Laine diverse	ulierement re-
	Laine en Toison	par le Port de
	Laine non-filée	, qui en à reçu
	Laine peignée	ées précédentes
	Laine filée	quantités plus
1784	Laine diverse	bles, ainsi qu'
	Laine en Toison	n juger par le
	Laine non-filée	particulier cy-
	Laine peignée	a été importé
1785	Laine diverse	Royaume, par
	Laine en Toison	de Boulogne,
	Laine non-filée	en Toison:
	Laine peignée	voir.
	Laine filée	112,000
1786	Laine diverse	118,000
	Laine en Toison	107,000
	Laine non-filée	171,000
	Laine peignée	174,000
	Laine filée	39,000
1787	Laine diverse	{ avant le Traité
	Laine en Toison	{ depuis le Traité
	Laine non-filée	{ avant le Traité
	Laine peignée	{ depuis le Traité
	Laine filée	{ avant le Traité

\* If the reader turns to vol. viii. p. 470, he will find by value, the two counts gained from different quarters therefore agree, except the transcriber.

That the account by Mr. Anstie of wools imported into the harbours, of which he gives a more particular account, is nearly, if not quite, twice as great as the whole of the importation, according to this paper.

That by correspondence and reading, from what he has been able to learn, the clothing wool which comes from Roussillon and Languedoc, exceeds, as well as in price, our finest clothing wools.

That from the same sources of intelligence, he believes the state of the clothing wool of the other provinces of France, to be equal to the middling clothing wools of England; and he has specimens of it in his possession, which confirm that opinion.

That the necessity which has been supposed to exist, of using English long combing wool in French manufactures; he believes to be contrary to the rules of common sense. Because as British wool, when exported to France, must be as much dearer than it is in England, as the risk of smuggling will make it, which seems agreed on all hands to be about 100 per cent. and the wool of France may, as there is no prohibition to the contrary, be brought to England at the common expence of freight and insurance—an Englishman may at any time possess himself of a mixture of French and English wool, at a cheaper rate than a Frenchman can, and consequently meet him, at whatever market he carries his goods to, with goods made

made from a raw material, bought at a less price ; but as he never heard that any Englishman did import French wool for this purpose, he concludes such mixtures to be unprofitable, as otherwise no doubt would remain but that the English would purchase them.

Whether the French have any other means of obtaining long combing wool, which has been stated to be necessary for some of their fabrics, without having it from England ?

That the French have at present a considerable number of sheep in the marshes next the channel, of the English and Flandrine breed, and there is a district in Flanders, on the banks of the river Lys, of 60 miles long and 30 miles wide, where extremely good long wool is grown, of which the French have hitherto obtained and continue to obtain, a large quantity ; by information from Abbé Mann, of Brussels.

That he had heard it given as an opinion, by manufacturers who were acquainted with it, that an English workman, who is paid 2s. per day, works cheaper than a Frenchman who is paid only 1s. 6d.

That from such materials as he has been able to get, he is of opinion, that long combing wools are double the price in France that they bear in England ; but the coarse clothing wools are about 50 per cent. dearer in France than they are in England, and that finer clothing wools, averaging those

those of Herefordshire and the South Downs, are depreciated about 10 per cent. that is, are 10 per cent. dearer in France than in England.

That the laws against exporting wool from England have been broken, is fully proved by the paper delivered in to the House ; and that the French have been able to get English sheep to breed from, is certainly an additional instance of a breach of them.

That every man is as well able as the witness, to calculate the temptation of 100 per cent.; but the paper given in to the House appears to be a proof, that the bulkiness of the commodity, and the severity of the existing laws, have very much diminished the temptation.

That the paper he delivered in, includes the whole of France.

John Dumaresq called in—deposed, that by an act of Car. II. 2000 tods are allowed to be exported to Jersey; and by an act of the 1st W. and M. an additional quantity of 2000 tods more—in the whole 4000 tods.

That in the year 1783, he has documents to prove that there was 3212 tods manufactured in Jersey.

In 1784	—	3167.
1785	—	3595.
1786	—	3490.
1787	—	3460.

That

That the difference between the quantity imported, and that manufactured, he accounts for in two ways—The first is, that a considerable part of the remaining quantity is employed for the consumption and wear of the inhabitants themselves.-- The second is, from the shortness of time that the states of Jersey had to get information upon oath, of the quantity of wool actually manufactured in Jersey, in the course of those four years they could not obtain the affidavits of some of the merchants who were out of the Island, and who had not an opportunity to come and declare it as other merchants did, whose affidavits he has in his possession, to the number of 64, which the tendency of was, that they had manufactured, or caused to be manufactured, so many tods of English wool by the hands of the inhabitants of Jersey, in knitting of stockings, waistcoats, caps, and other goods to the amount mentioned; which goods, it is said in those affidavits, after being so manufactured, are exported to France, Newfoundland, &c.

That it is a common report in Jersey, repeatedly heard, that the French, along the coast near the Island, have a method of tying up their own wool in the manner the wool combers practise in Jersey, which is peculiar to the Island, to make it pass for English, and impose upon their customers.

That another circumstance comes more within his knowledge:---There come to both the Islands  
of



of Jersey and Guernsey a considerable number of fat sheep for the market ; and the exporters of those sheep are obliged to give a certificate and bond, that they will return the fells of those French sheep in France---a prosecution has taken place against a person for exporting wool to France,---that the prosecution took place on the information that a quantity of woolfells had been seen landed in France from a Guernsey boat.---The matter came on before the Royal Court in Guernsey to be tried ; and it appeared to the satisfaction of the Court, that those woolfells were of the description just mentioned.---The certificate was produced, witnesses examined, and the accused person discharged.

That the inhabitants in all are upwards of 20,000 in Jersey, 10,000 of whom live solely on the woollen manufacture.

That the Island of Jersey produces few sheep of its own.

That no English vessels, with wool on board, come to Jersey, but what is allowed by law.

That he will not take on him to say there is no wool sent to France, but he may venture to say that the quantity is so small as he is sure, if it was known, would not merit the attention of the Legislature, the laws in Jersey being the same with respect to the exportation of wool as they are in England, besides other restrictions and precautions ;

tions ; and the exportation of wool is of such universal concern, that no man scruples to be an informer.

That he has heard that a person in Jersey will knit a stocking in one day.

And the Council being called in again, the Council for the petitioners desired that Mr. Young might be again called in.

Arthur Young, Esq. was accordingly again called in, and examined.

That the ordinary price of wages, in the cloth manufacturing towns of France vibrates between 20 and 40 sous---i. e. from 10 to 20 pence per day.

That the general idea among the French manufacturers, with whom he conversed was, that labour in England, in that manufacture, was much cheaper than similar labour in France.

That the skill of English workmen is there supposed to be so much superior to the French workmen, that a yard of any woollen manufacture, or any given weight of wool, would be manufactured cheaper in England than in France.

Then the witness was directed to withdraw.

Mr. Graham then pleaded against the bill, and in a speech of considerable ability shewed that the manufacturers were totally unfounded in their application ; that their trade, instead of being declining, was highly prosperous—that the illicit trade was of no account—and that supposing it  
great

great, the measure now brought forward was not at all calculated to lessen it; to prove this, he deduced the history of wool from the time of Edward III. drew many well founded conclusions, and added various pertinent observations.

April 24.

Mr. Partridge for the bill heard, but the House being counted, on motion of Mr. Vyner, and only 35 members present, the business was of course postponed.

April 30.

Mr. Phelps having moved the order of the day, for hearing council on the wool bill.

Mr. Drake said, the House being so very thinly attended, he wished the order of the day to be postponed, and conceived it more fit for the House to dismiss the bill at once, than give it so little attention.

The Hon. Mr. Marham was against the Council proceeding, unless there was a House, and insisted on the members being counted.

The Speaker immediately counted the House, and there being 40 members, the Council were ordered to proceed.

Mr. Partridge, as Council for the bill, was heard. His pleading was more ingenious than forcible—touching lightly on a great variety of points, but drawing none into such bold full relief as either to convince, or impose on the judgment of

of the audience. But his argument was better than his cause.

He remarked that the great object to ascertain at present, was the amount of the export, for he admitted that if it was trifling, his employers had no business to come to Parliament, that the proofs brought were sufficient, and would not be found to stand impeached by the evidence which had been brought against it. That Sir Joseph Banks, to whose important situation, in the science of the country, he was ready to bow, had spoken at the bar much more on opinion than on facts \* ; and as the evidence brought by the manufacturers, consisted only of facts † ; opinions could not controvert them. That the other witness, Mr. Young, had, according to his own account, travelled for agricultural information, and attended to manufactures only through curiosity, and consequently must be very insufficient for establishing the facts he laboured to bring forward. That, besides, he was a person who had uniformly and positively opposed the bill in every period of its existence, and with a degree of warmth, in the county where he lives, as should make his evidence be received with caution.---That he had assembled that county

\* If the reader turns to Sir Joseph's evidence, he will find the essential part of it pure facts.

† Let the reader examine the colour of these *facts*, by turning to the report of the committee.

in opposition to the bill, and even presided in the meetings that were hostile to it---that he had published a variety of papers against it, in a periodical work; and upon the whole was to be looked on as a marked and determined enemy to the bill!. That such were the two principal witnesses brought forward against a mass of evidence which he trusted would be found satisfactory.

That Mr. Sharpe's was direct and clear, and not invalidated by the gentleman's Mr. Young produced, for he stated him to have concerns in the pacquets, by which the report shews the wool to have been smuggled \*.

That at the Custom-house of St. Vallery, the evidence also is clear and direct, and not shaken by Mr. Young's other correspondent; for does that gentleman send an examined copy of the Custom-house registers? No †. That Sir Joseph Banks' re-

\* Nothing could be more fallacious than this argument.—The owner of a paquet may have no more to do with the smuggling carried on by any of the crew, than with smuggling in the moon, only for obvious reasons to prevent, if he suspected a practice, which might be very injurious to him. But the question in this point was simply this; Mr. Sharpe states, that 30 tons of English wool are entered in 1783 on the Custom-house books of Calais. The gentleman, in question, examined the books, and declares there is no such entry.

† The learned counsel speaks of Mr. Young's getting official papers from French offices, as if it was as easy as Mr. Pitt's getting them in England. What did Mr. Anstie get?



turn is more particular, but then it does not extend to Guernsey, Jersey, and Ireland \*; for the title is not *Laines Angloises*, but *Laines d'Angleterre*, and it is well known that the import immediately from England is not one-tenth of the whole.

Mr. Partridge then observed, that not being bred a manufacturer, he must, in explaining the subject, depend on information. That wool is divided into long and short; of the long are made worsteds, blankets, and baizes; and of the necessity of this for the French fabrics, he was instructed by Mr. Anstie, who was perfectly well skilled in the business, and who from his superior knowledge of the subject †, was chosen by the united voice of the manufacturers, as competent to judge of this necessity of English wool to the fabrics of France. That it is used for its strength, as the warp or chain, stretched ready for receiving the weft, which its strength, fineness, and stability, made it essential for. One pack of it combed with a pack of their own wool formed the warp; and they made another mixture for the weft, by which means one

\* This assertion, upon which much was afterwards built in the debate, was merely *gratis dictum*. The contrary is the fact, *Angleterre*, in the French Bureau, includes all the British dominions in Europe.

† Mr. Anstie's own business being entirely confined to the manufacture of short wool, necessarily knows no more of the fabric of long wool than of silk, cotton, or any other material.

pack of our wool enabled them to work up three packs of their own \*.

That Mr. Young comes forward upon the competition between English and French manufactures, necessarily without the knowledge that is essential to the subject; and Sir Joseph Banks spoke to this point only from common sense, supposing English and French wool to be of the same quality; but in fact, the English † is infinitely superior, and Mr. Young, himself, admits that they buy at a vastly higher price. That it ought not to be forgotten, that Mr. Dumaresq informed the House, that the French tied up French wool in the English manner, in order to pass it for English. Why? why should this be done, if English wool was not much the superior---a sure proof they think it so ‡.

\* A very small amendment will make this account tolerably exact—change *English* to *foreign* wool, and there will be some truth in it. The fact is, that the French import much long combing wool from Flanders, Holland, Holstein, Germany, &c. for the purposes, perhaps, which are here described, and among the rest, but in a most trifling quantity, from England; and the error here dilated upon, is the gratuitous supposition, that all this *foreign* wool is *English*.

† The foreign.

‡ Such an argument can impose on none but the unwary; It is admitted, generally speaking, that French combing wool is inferior to English, Flemish, Dutch, and German; it may therefore be taken for granted, that frauds of this sort are practised near England, to pass their wool for English—near Flanders, to pass it for Flemish and Dutch—near Germany, for German, &c. &c.—But it proves nothing, whatever, of the peculiar superiority of *English*.—Foreign combing wool is better than their own, but not foreign quasi English.

That Mr. Young, in his monthly publication, asserts there is nothing precise in the Boulogne intelligence. That, on the contrary, it is perfectly so, and he ought to be very correct himself, before he censures the want of correctness in others. That that gentleman has treated the report of the Committee of this House in a manner, and with a contempt, that is more the business of the House, than the council's. For these reasons, and for the general prejudice of Mr. Young, little reliance ought to be placed on his evidence. God forbid, however, added Mr. P. that I should attack his evidence, as a moral man.---I do it not—but upon this business he is unskilled, and wanting knowledge of the subject, his evidence must vanish.

The learned Council next remarked, that if the growth of wool was stated, as it commonly is, at 600,000 packs, the amount of 13,000, the quantity which he contended was exported, though it bore no great proportion to the total of 600,000, yet was a very material part of 200,000 packs, which he was instructed to state the quantity of our long combing wool at, for it amounted to  $\frac{1}{8}$  of it, and as by means of this quantity, the French were enabled to work up 50,000 packs; the injury this quantity must do to our manufactures was great and essential\*. He was instructed to say, that these

\* The whole of this reasoning was so shallow, that well-informed people were surprised, a man of Mr. Partridge's abilities would use it, but as the Minister adopted it, and repeated afterwards

these 13,000 packs would employ 37,000 hands, and be wrought to the value of 500,000l. †

The learned council then came to the clauses—he said that Mr. Erskine was wrong in speaking of 100 statutes repealed by this bill, the number was not more than 20, as above 80 concerned only the internal conduct of the manufacture—That the severities complained of were not unheard of, for the act for encouraging the British fisheries, would give similar examples. That severity was necessary and wholesome, in as much as the exporting smuggler was a worse offender than the importing one.

wards exactly the same opinions, and almost in the same words; we may suppose both derived their information from the same source. But note:—

1. Supposing 13,000 packs of long wool, better than their own, enable them to work up as here stated, it does not follow that these are English; all here proved is, that so much good wool will enable them to fabricate so much bad wool; which, to the point in question, is saying just nothing at all.

2. Supposing these 13,000 packs to be (contrary to all evidence) actually English, still it proves nothing in favour of the bill; the argument was to shew the great injury that would accrue to our manufacture; nothing less than ruin, if the bill did not pass; but the Council forgot, as the Minister did afterwards, that he was describing not what was to happen in future, but what had actually happened in past; he should therefore have had recourse to experience, and looked for the actual existence of the ruin, which he was only predicting. He had attempted to prove this export of many years standing, the effect therefore was in full play. Did he shew it? Did he attempt it? Did he dream of such a thing? No.

† What this employment was Mr. P. did not explain, nor how long these hands would be employed.



That it was no unconstitutional ground to oblige an offender to prove himself innocent, it was necessary to give effect to the laws; else they would be made merely for smugglers to laugh at. That the powers to justices were not new, for by the general Wool-act of the 12th of Geo. II. offences were made cognizable by two justices\*.

Mr. Partridge concluded with asserting, that the landed interest had no reason to complain of the present procedure; for that if a higher price of wool would give them 100,000l. more in wool † the produce manufactured is, 600,000l. Estates therefore are not of less value; that wool is now risen to a full adequate price ‡. That it has al-

\* True in fact, and false in conclusion.—The cases have no resemblance.

† What the council meant by this, is not easy to understand; the difference of price complained of, and which he admitted amounted to three millions sterling, what, to that depression is the ideal sum of 100,000l.? Does he mean that the fabric is 18 millions sterling more than it would be under a different police?

‡ These endless assertions, without the recollection that such a thing as proof could be wanted, are strange. What is an adequate price, but that which is formed by competition? Cut off competition and the price is immediately a monopoly one. That of wool is 100 per cent. lower than in every country of Europe; if it is adequate now, what was it in 1781 and 1782, when it was 800 per cent. lower? Was it adequate then also? Yet an export was denied.

ways



ways been the wisdom of the legislature, to encourage the manufacture, which feeling itself aggrieved \* at present was the only origin of the bill.

The council being withdrawn, Mr. Anstie was called to the bar, and examined by Mr. Marsham and Mr. Powis.

*Do you know Mr. Finch? Particularly well. Did not Mr. Finch between Christmas and Easter generally attend the Wool Meetings at the Crown and Anchor Tavern in the Strand? He generally did attend. Did Mr. Finch appear there as an individual, or in what capacity? As a delegate in conjunction with other gentlemen from the county of Kent. Did not Mr. Finch on all occasions appear very desirous to make an effectual bill to prevent the smuggling of wool? He certainly did. Whether at any of the meetings any difficulties were thrown in*

\* These were correctly the words used, and very remarkable it is, that the learned council here only in his whole speech touched on the declension of the manufacture being a motive for the present application, for this expression, if it implies any thing else, is nonsense. He had however been so very well instructed by his employers, that he never once offered to justify their applications to Parliament, on the ground of any declension, or, attempted for a moment to shew, that such existed in the smallest degree.

*the way of the bill to prevent smuggling, by the delegates of the county of Kent? Difficulties arose from the nature of the subject, and Mr. Finch was at all times open to make his objections to what he thought improper: at the same time always expressing the strongest desire to make the bill effectual. Did not his conduct appear to coincide with those professions? Entirely. Was not Mr. Finch present at a numerous meeting at the Crown and Anchor, when a bill was agreed to be offered to this House, that laid restrictions on the manufacturers as well as the growers of wool? He was present at that meeting, but did not remain there till the bill was absolutely settled.---At the same time it was understood by Mr. Finch, that the bill was to be general with respect to its restrictions on all the maritime counties. Did Mr. Finch leave the meeting with assurances that that was to be the fact? I beg leave to state, that in my opinion, he did leave the meeting fully persuaded that the restrictions were to be general through the maritime counties; but I do not know of any engagement having been entered into with Mr. Finch, by the committee, respecting any alteration that might possibly be made in the bill.---I beg leave to add, I am not answerable for the proceedings of the committee during my absence from the meeting as chairman. Whether, in your opinion, the growers of wool are those that have been guilty of smuggling? I am not competent*

competent to answer that question. \* *Whether, from your information, you imagine the growers of wool are the smugglers?* From the information, in my possession, I certainly am not warranted to say any charge lies directly against the growers of wool. *Whether, from your information or observation, the growers of wool, in the county of Kent, have been more guilty of smuggling than the wool growers of any other maritime county?* Certainly they have not. *Whether, it has not appeared to you, that the wool buyer has been the smuggler rather than the wool grower?* The immediate purchaser of the wool, from the grower, is most liable to the charge of exporting it. At the same time, from my information, it appears from some circumstances, that there was a connexion between the grower of wool and the immediate purchaser, in facilitating the exportation of wool. *Whether the bill, as now framed, will, in your opinion, prevent the wool buyer from being the smuggler?* Question objected to.

Witness withdrew.—Called in again.

*Whether, in your opinion, the regulations in this bill will prevent the wool-buyer from being the smuggler?* My situation is a very delicate one, and I hope the House will take it into consideration. I stand here as the chairman of the committee of manufacturers.—The bill has undergone an alteration, the responsibility of which the committee have taken upon themselves. *Do you positively de-*  
*sire*

*Are to decline answering that question? I most certainly wish to decline it. Do you, as having been chairman of the committee, wish to decline giving any opinion on the provisions of the bill as it now stands? I certainly decline answering no questions which this House think right to put to me. Can you state any reason, either of justice or of policy, why the counties of Kent and Sussex, should by a new law now to be passed, be put under different restrictions from any other maritime county? I cannot possibly state any reason why they should be subject to restrictions different from other maritime counties, but what has been stated in the preamble of the act of William III. which it is not for me to decide upon the propriety of. Is the illicit exportation of wool, at this time, confined entirely to the counties of Kent and Sussex, or carried on there to a greater extent than on other parts of the coast? I would wish to speak of the time past—of the present time I cannot.—In time past, it appears in evidence, that large quantities of wool were exported from Sussex, which, it is presumed, might be purchased in the county of Kent. But my evidence, as delivered to the committee, certainly proves that smuggling has been carried on to a considerable extent, in other maritime counties, as well as in Kent and Sussex. Is it your opinion that the smuggling of wool, to the extent that you have stated, is owing to the insufficiency of the present laws? I certainly do attribute it*



it to the insufficiency of the present laws. *Why then did you, as chairman of the committee of manufacturers, in the first instance, apply to the Lords of the Treasury for a more vigorous execution of the present laws? I considered it absolutely necessary, in my situation, to suppose that the laws were effectual, and to apply to the executive government of this country for a proper execution of them. Did that application produce any effect? It apparently produced some effect, but not sufficient to answer the expectation of the manufacturers. Is the smuggling of wool carried on now to a greater extent than before the late war? I cannot speak to a period of time in which I took no cognizance of the subject. Have you taken any pains to inform yourself of that fact---of the quantity of wool smuggled before the war and since? From the enquiry I have made, at the first general meeting held in London, it appeared clearly, that the practice of smuggling wool had very much increased, and on the testimony of Mr. Finch, I had great reason to believe, that if some effectual remedy was not provided, still greater quantities of wool would be sent abroad. To what period have you extended your own enquiries on that subject? I have examined such records as came under my notice, respecting the smuggling of wool many years past, and it appeared to me, that the practice had been generally prevalent, but not equal in extent to what I conceive*



ceive it to have been from the year 1782, to the point of time, when the manufacturers, particularly exerted themselves in suppressing it. *Have those records, to which you allude, been produced in evidence before any Committee of this House?* No. *State of what kind those records are?* They are accounts delivered into the House of Commons---I speak from memory, but I think it particularly alludes to the year 1710, when an enquiry was instituted similar to the present. *Did you consult any documents between the year 1710, and the time of the present enquiry?* I have endeavoured to furnish myself with all possible information, to direct me in an impartial investigation of the subject. I have also examined the proceedings in 1736 or 1737, but I could not procure any papers that would warrant me to give an answer equally determinate to what I have given respecting the period of 1710. *Can you state whether the export of woollen goods is greater or less since than before the late war?* The variety of concerns that have engaged my attention in this business, has precluded me from obtaining such information on this point as will authorize me to answer that question. *Is the present bill, in your opinion, effectual for the purposes for which it is intended?* I should hope, from the laws being now concentrated in one point, from their being more easily understood, and from the greater facility in the execution of them, that it will be more effectual

tual than the laws now existing. *State your opinion, and not your hope?* My opinion is decisively, that a more effectual law might be enacted, were it possible to unite all the different interests that would be affected by such a law. *Have you attempted to introduce a more effectual bill?* It was my endeavour to render the bill entirely effectual. *What was your reason for relinquishing that attempt?* Under the circumstances in which the committee of manufacturers considered themselves as placed, they deemed it necessary to make an alteration in the bill; and I beg leave to state, that some of those circumstances are of such a nature, as perhaps it may be impossible for the manufacturers ever to submit to. *State what those circumstances are?* The difficulty of rendering a bill on the principle on which we first set out, arises from the objections brought by the gentlemen who deem it their interests to oppose the manufacturers, that they are not equally restricted with the growers of wool, and which objections, in my opinion, as stated by them, cannot possibly be obviated, so as perfectly to satisfy the gentlemen who make the objection, at the same time, I wish to say, that the manufacturers, on their part, did every thing to subject themselves to every possible restriction that their situation could admit of. *Is not the present high price of wool stated, and complained of as a grievance by the manufacturers?* It certainly is. *Is not one principle*

*principle object of the present bill to lower that price?*

It never was an object with me, nor has it ever been avowed at our meetings, or brought forward as a reason why the bill should pass.—I am not answerable for the private opinion of any manufacturers. *Do you not know that that is the intention of the manufacturers?* I am in possession of a paper which most certainly avows that it is the wish of the manufacturers, and grounded on reasons, which confined to that particular instance, appears to me to have great weight. *State the contents of that paper, and from whence you had it?* It is a paper I received from a manufacturer in Somersetshire—A member in the House, I believe, has a similar one.—It states the situation of the manufacturers in that part of the country.—It is signed.—It is a copy of a letter—the opinion of an individual, who had taken great pains to enquire into the subject. *Must not the narrowing the market for any commodity, tend to discourage the culture or growth of the commodity?* Question objected to.

Witness withdrew. — Called in again.

Question repeated.—It must, speaking in general terms. *Why have you stated the present price of wool as an advanced price?* It appears from my own opinion, formed from observations, that there has been an increasing demand for certain kinds of woollen goods—but I beg leave to say, that I have no where advanced that the wool of this kingdom  
is,

at present, much higher than it has been. *Have you compared the value of wool with the value of the other produce of land? I have not. —the other produce has increased. If the price of wool should be considerably reduced, should you feel inclined to oppose a temporary export of it? I consider the manufacturers as pledged to answer that question in future. —*

*[Question repeated.] — Was it considerably reduced, and it could not appear that it was owing to circumstances affecting the manufacturers as well as the growers of wool, in my individual situation, as a manufacturer, I could not oppose it. What price must wool bear to induce you to consent to that temporary export? I am not competent to answer that question. — It is with the wisdom of the House, under the particular circumstances. From what authority have you stated to the committee of this House, the necessity of the long English wool for the French manufacture. — Is it from your own knowledge or from the information of others? From both. What opportunity have you had to acquire that knowledge? By the immediate information of a considerable manufacturer in France, and who applied to a person dependent upon me for the purchasing of English wool — and by applications made indirectly to myself from a very considerable merchant in France. — I would also request to say, I have the authority of a very respectable merchant, in London, that on the prospect of the commercial treaty taking place,*



place, many applications were made to him from different persons in France, for the purchase of English wool, and they felt themselves very much disappointed, when they found the prohibition on wool was continued—If necessary I can state his name. *Was that person before the committee?* No, it is a recent information, obtained by me, within this week. *Is not the apprehension of the facility which the present commercial treaty may give to the smuggling of wool, one reason for introducing the bill at present?* It was no reason which could possibly operate, as the enquiry begun before the commercial treaty was even in contemplation. *Would not the danger of supplying France with an article stated to be so indispensably necessary for their manufactures apply as an argument against any export of wool, whatever might be the price of it?* It would apply as a general objection, but if the manufacturers were reduced to the situation of not being able to use the wool of this kingdom, then, I presume, they must revert to the original policy of exporting it. *Would the reduction of the price lessen the objection of supplying a rival with a necessary material?* I should conceive it would. *Why?* On the ground of my reasoning I cannot vindicate the manufacturers for wishing to retain the wool of this kingdom within themselves, but on the supposition of their being capable of making use of it. *Do you know whether the*  
*exportation*



*exportation of Irish wool to France is prohibited by any Irish statute? I should suppose it is, but don't speak from any knowledge, but from a supposition that the present laws for preventing the exportation of wool, have not been rescinded by the legislature of Ireland. If the legislature of Ireland now, or hereafter should allow of the exportation of wool to the Continent, would our prohibitory laws effectually prevent France from being supplied with the kind of wool which you have stated as necessary to their manufactures? They certainly would not. Does not Ireland produce a considerable quantity of long wool? Yes—some quantity. Have you enquired what that quantity is? Not particularly so; I think I am competent to say, that in the present situation of the woollen manufacture in Ireland, compared with the proportional small quantity of wool grown in Ireland, that they have no inducement to export it—Can't state what the quantity is. Do not the prohibitory laws on the exportation of wool, operate as a bounty on the exportation of woollen goods? It may possibly be understood in that sense—When I speak of the exportation of wool, and the disadvantages arising to this kingdom from its exportation, it is founded on a firm opinion, that combing or long wool of equal quality with English long or combing wool cannot be obtained by the French manufacturer from any other kingdom. If the prohibition can be considered in the light of a bounty, by*

*whom is that bounty paid?* That is not the point of view in which I have considered the question. [Question repeated.] It would appear to be paid by the grower of wool—I beg leave to add, that I consider that he receives a compensation for it in the advantage arising out of the manufactures. *Can you state any other kind of bounty that is not paid out of the public revenue?* I cannot. *Have you been examined by the committee of trade at the privy council?* Twice. *On what subject?* Relating to the commercial regulations with Ireland, respecting the woollen manufacture, and also on the proposal of a commercial treaty with France. *Have you been examined there on this subject?* Not particularly.

Withdrew.

*Sir Peter Burrel* moved, that the evidence of Mr. Anstie should be printed.

*Mr. Stanhope* opposed the motion, which was, he said, made for the purpose of delay, and by that means to defeat the bill.

*Sir Peter Burrel* declared he would suffer no man to impute such motives to him, he meant no improper delay, but to have the evidence before the House.

*Mr. Stanhope* said, he meant to impute no such motives individually to the Hon. Baronet, but there was every appearance of a wish to defeat the  
bill

bill, by delay; for the House had once been counted out on the present business, and it had been again attempted that day.

*Mr. Marsham* said, he was amazed that any member should impute a desire of delay in those gentlemen who wished a proper attendance on a business of such importance as the present, a business materially interesting to our landed and manufacturing concerns.—He meant no delay to the bill when he moved the House to be counted; he did no more than his duty, which he should have neglected, had he silently suffered the present important business to be discussed in so thin a House. He was ashamed of the neglect of members, he was ashamed to think that on a political question, brought forward the preceding day, four hundred members attended, but on a question which more nearly interested their constituents, they paid no attendance. Such conduct was, in his opinion, very blameable, it was a violation of their promise to their constituents, and a neglect of the duty they owed their country.

*Mr. Rolle* spoke against the motion for printing the evidence, as it would go to delay the bill being passed.

*Mr. Vyner* justified his conduct in moving, on a former day the House to be counted, and spoke in favour of the present motion.

*Mr. Hufsey* was against the motion, as it would occasion a delay, which in all probability might prevent the bill passing this session.

*Mr. Harrison* was for the motion, wishing every member of the House to have an opportunity of perusing the evidence.

*Sir Joseph Mawbey* said, he was convinced that the motion, if agreed to, would occasion improper delay, he should therefore give it his negative.

The question being put, that the evidence be printed, the House divided.

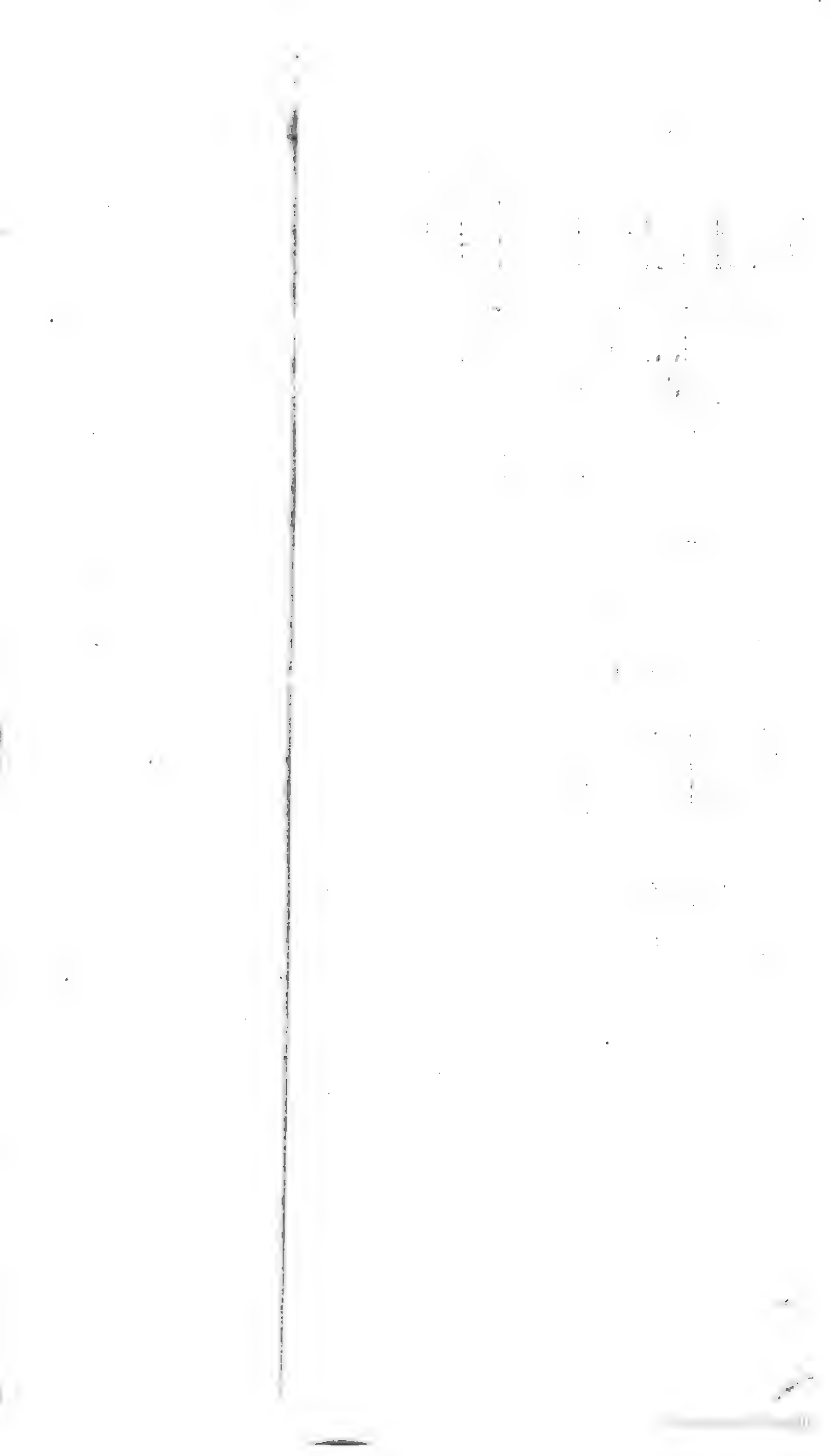
Ayes	_____	33
Noes	_____	67
		—
Majority	_____	34 against

the motion.

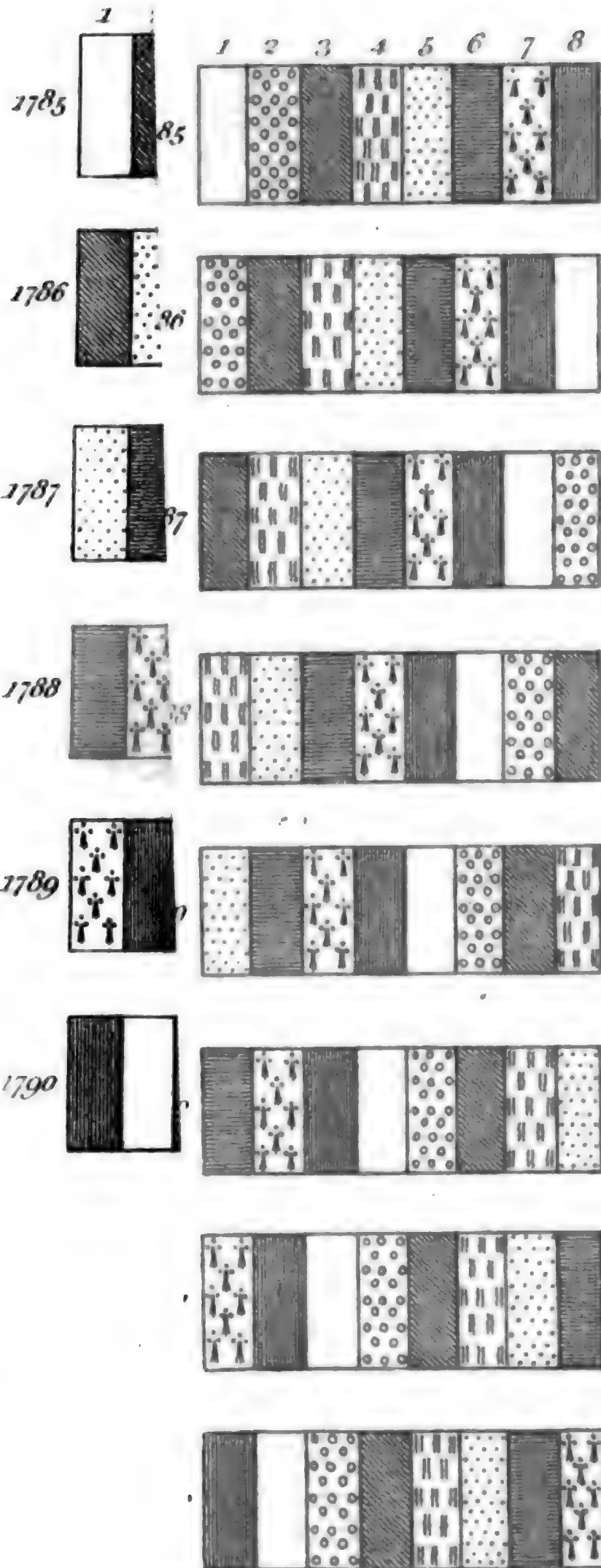
At ten o'clock the House adjourned.

The objection here raised to printing *Mr. Anstie's* evidence, was the most trifling that can be imagined, and the event proved it, for there was time to have printed and dispersed it, had it been five times as voluminous. *Sir Peter Burrel* declared that he had many questions to put to *Mr. Anstie*, and wished for an opportunity to do it; but this also was denied, and the House given to understand that he should be called no more.

May 1.







*Fallow*



*Rape*



*Winter  
Wheat*



*Pease, Cabbages,  
Turneps, Potatoes,  
Flax, Millet, &c.*



*Barley or  
Spring Wheat,  
sown with Clover.*



*Clover to cut green,  
or for Hay.*



*Rye*



*Oats*

*To face the article 'Gypsum as a manure'.*

May 1.

*Mr. Phelps* moved, “ That the Bill to prevent the exportation of Wool, be committed.”

*Sir John Thorold.* Far from presuming that any thing I can urge, will add weight to the very convincing arguments adduced by the learned council on a former day, against the future progress of this bill, but merely to perform a duty which I owe to my constituents, whose interests will be so materially injured, should this bill pass into a law, I beg leave to solicit the indulgence of the House for a few moments. It seems to have been the invariable policy of the manufacturers, to exaggerate the annual illicit exportation of wool; conceiving, no doubt, that a complaint of their being deprived from manufacturing, a very large proportion of the annual growth, would entitle them to a continuance of the partial monopoly they had so long enjoyed, who, when called upon to ascertain the amount, heretofore contented themselves with alledging, that although the fact, from its nature, was incapable of absolute proof, it was nevertheless unquestionably true. The manufacturers of the present day, appear to me, to have acted with somewhat less caution; who (quitting this ancient and very useful mode of defence) have undertaken to prove, that 13,000 packs are annually exported, and on that ground, modestly request

a repeal of all the existing laws, in order to substitute a new law of their own. For which purpose they have adduced copies of entries from the ports in France; returns of seizures from our Custom-House, and with some other incidental seizures; endeavour to form their total, of 13,000 packs; but which, from the best examination I have been able to give their statements, does not amount to near 3,000 packs. Besides these copies of the French entries having been procured by an anonymous agent, hired by an interested manufacturer, come with very questionable authority, and ought to be received with great caution. With respect to the witnesses who were examined at the committee, they did not even pretend to speak to facts from their own knowledge; and although they had heard much, and declared they believed all they had been told: yet such narratives will, I presume, scarcely be deemed worthy the name of evidence. When I say this, I beg leave to except the positive evidence of Mr. Thomas Spiedel: but as this gentleman's testimony has been so admirably displayed by the learned council on a former day, I shall not waste the time of the House with an enquiry, whether he really does, or does not possess such astonishing powers of discernment and discrimination, as enabled him to distinguish wool to be British (either  
with

with or without his glass) at the distance of a mile. Mr. Anstie certainly possesses no such powers; for he declares (in page 8 of the Report) that with the advantage of three different samples of English and French wool in his hand, he could perceive little or no difference in their quality. Having mentioned this gentleman, it may not be improper to advert to a correction in his evidence, who having (page 10 of the Report) stated the amount of the annual exportation at 10,000 packs, enraged his committee, who insisted on his adding 3,000 packs: in order to pacify them, he assured them, nothing in nature could be more easily done, and accordingly did so enlarge his statement. Now it is rather a curious circumstance, that those additional 3,000 packs forced upon the chairman by his committee, should *by themselves*, exceed the whole amount deducible from the manufacturers own statements, and serves to shew what credit ought to be given to evidence so *pliable*. Fortunately, Sir, for the cause of justice and truth, many authentic documents have since been procured from France, without fee or reward, in the most honourable way, and by persons of undoubted veracity and integrity! which clearly prove that in no one year, since the peace, the annual importation into that country, has ever reached *one tenth*; and since the ratification of the commercial treaty one

*twenty fifth part* of 13,000 packs. With respect to the bill, should it be contended that it is most prudent to abide by those laws, under which, this nation has so long flourished; then I would ask, Why do the manufacturers wish to alter them? Should it be said, to amend them, I would again ask, Ought they not first to have proved them inefficient, and whether the exportation of 11,00 packs in one year, and 280 in another, sufficiently proves their inefficiency? For I am yet to learn what other proof has been adduced?—Should it be alledged, that this bill, by exchanging the punishment from transportation to imprisonment, alleviates the severity of the existing laws—it is granted: but if the alleviation of one punishment is to be accompanied by the introduction of divers new severities, the wool-grower earnestly entreats to be excused from accepting this proffered act of mercy, which would only serve to remind him of the notable instance of lenity in the Jewish mode of punishment, which remitted one stripe while it rigourously inflicted thirty-nine. But this bill is perfectly harmless! Is this bill, Sir, so perfectly harmless, whose avowed principle is partial monopoly? Which, rashly presumes every wool grower near the sea, necessarily a smuggler, and after entangling him in infinite and unintelligible regulations, subjects him to grievous fines and imprisonment!



prisonment! robs him in some instances, of his birthright as an Englishman, of trial by Jury; encourages false accusations, by removing the burthen of proof from the informer, and by rewarding him with the whole amount of enormous penalties. Now some person, perhaps, may ask, while the manufacturer takes such especial care of the wool-grower, *Quis ipsos custodes, custodiat?* Oh, Sir, it is a foolish and fruitless enquiry? The manufacturers are all honourable men; and therefore this bill acts wisely, by leaving them at home in perfect security and repose, without suspicion or restraint. If this be justice and lenity, what is oppression? Yet such, Sir, is the justice and lenity of these gentlemen, who leaving their looms and their warehouses (their proper sphere!) aim to prove themselves equally well qualified to make *laws and broad-cloth* for their country. But entertaining as I do, very considerable doubts, whether any abilities can ensure success, in occupations so widely differing, I shall trespass no longer on the patience of the House, than to thank them for their kind indulgence to a very feeble, but zealous advocate, in the cause of the innocent, injured, insulted wool-growers of this country, on whose behalf, and on the behalf of the whole landed interest, I shall now move, “That the further  
 “ consideration of this bill be postponed to this day  
 “ three months.”

Mr. Duncombe

*Mr. Duncombe* stood forth the first advocate of the bill, which he defended on grounds of expediency and policy. He entered into a discussion of the nature of the evidence of *Mr. Young* and *Sir Joseph Banks*, speaking of them both as men deserving great respect, but as witnesses who had avowedly declared their opinions, grounded on the information of others, instead of stating facts within their own knowledge; a species of testimony liable to great jealousy and distrust, in-as-much as every man, the most respectable, is liable to be deceived by others. *Mr. Duncombe* reasoned upon the probability that the evidence adduced, was in a great degree fallacious, and shewed, that the manufacturers had ever proved themselves the best friends to the wool-growers\*; and that, therefore, if the present bill even gave a small turn in their favour, it was a turn that the wool growers ought not to grudge or be unwilling to grant.

\* The Honourable member by this assertion, must mean that the manufacturers have proved the best friends to the wool-growers by duping Parliament into enacting near 100 statutes of restriction on him, for *Mr. Erskine* was right, and *Mr. Partridge* in an error when he reduced them to 20, eighteen twentieths of the internal laws of the manufacture, being in principle and tendency, monopoly ones against the consumers. And that the same good friends have proved their friendship, by heaping fine, penalty, punishment, and felony upon him. Also by the singular favour of robbing him in a century of 300 millions sterling. Heaven preserve the landed interest from such friends and such friendship!

He

He quoted a sentiment of the late Sir George Saville on the subject of the breed of sheep and the culture of wool, who had spoken of it in the style so peculiarly his own, and after stating how the animal was roasted, boiled, stewed, and dressed in a variety of modes, had declared, that Halifax and the neighbouring manufacturing towns of Yorkshire clothed the Hills of Lincolnshire, and by their encouragement gave the wool-growers in that country that support, without which they could not so long and so effectually have profited and prospered. After several remarks in favour of the bill, Mr. Duncombe observed, that a just complaint had been made, that one of the most obvious vices of the present age, was the delivering long speeches; of that vice he declared, he would not be guilty, that his speech therefore, might have at least the merit of being short, he would conclude with thanking the House for their indulgence.

*The Honourable Mr. Hobart* spoke on the same side of the question, stating a few arguments grounded upon information from the manufacturers of Norwich, whose cause he was strenuous to support.

*Mr. Harrison* (member for Great Grimsby) spoke very ably against the bill, which he was considered as an unnecessary boon to the manufacturers at the expence of the wool-growers.—He contended

tended that the manufacturers had not the least pretence to come to Parliament at all—That their trade was flourishing in a very high degree. That the exports of woollen goods, as appeared by accounts on the table, was encreasing rapidly.—That the Yorkshire fabrics had risen in an almost unparalleled degree, and that the House ought to consider it as a gross absurdity to hear new restrictions called for, at a time, when the most authentic documents proved them to be unnecessary. He stated the partiality of the existing laws with respect to the latter, to whose prejudice they materially operated, but the wool-growers had patiently submitted to them hitherto from a liberal desire to give every possible encouragement to the manufacturers. All the wool-growers now desired, was to be suffered to remain in the condition on which they had stood for some time past, and not by the introduction of a new law, containing clauses of rigour and severity, and such as would give rise to modes of prosecution and persecution unknown to any court of justice whatsoever. Mr. Harrison admitted, that with regard to what the Honourable Member for Yorkshire had said of the town of Halifax, and other manufacturing towns in its neighbourhood, clothing the hills of Lincolnshire, it was the fact; but it ought to be remembered that the wool-growers of that country substantially paid  
for

for the benefit, since they sold their wool to the Yorkshire manufacturers at half the price only which they could get for it abroad. He observed, that the evidence of Mr. Young and Sir Joseph Banks, was of a nature far superior to what had been printed by the committee. That it was fair open and above board. The original letters handed to the table, and no concealment—whereas Mr. Anstie's unknown intelligence, which he does not produce—nor his name—nor even the letters which contained it—and which may have circumstances in them to explain and give a different colour to the evidence—all is kept back. As far, therefore, as the weight of evidence goes, there cannot remain a doubt but that it is absolutely on that side which is adverse to the bill; and when Mr. Anstie was himself called to the bar, his own evidence, as far as it went, tended against the bill rather than for it.

*Mr. W. Stanhope* reminded the House of the extreme difficulty of ascertaining what was the real quantity of wool exported, since it was obviously the interest of the French to conceal the amount of British wool that was smuggled over to their kingdom, the welfare and prosperity of their country depending upon their obtaining as much as possible. Mr. Stanhope also pointed out the additional difficulty arising from the consideration, that none but Frenchmen could truly know the fact, and that they could not be expected to appear as volunteer witnesses



witnesses at the Bar of that House. If a French manufacturer were to come and honestly give his testimony upon the subject, he could not go back again to his own country; in order, therefore, to get such an evidence, a man must by some means or other be laid hold of at the critical moment when he was on the point of leaving France, never to return back. Mr. Stanhope added a few arguments to prove the propriety of suffering the bill to go to a committee, where any clause that might be thought too harsh might be modified and set to rights.

*Mr. F. Honeywood* spoke strongly against the bill, and particularly objected to the restrictions specifically imposed on the counties of Kent and Suffex, by one of its clauses.

*Sir Joseph Mawbey* supported the bill, and declared that it was quite harmless, as to the wool-growers: that he was himself a wool-grower, and, as such, had no objection to it. That his constituents, of the county he had the honour to represent (Surrey), he believed were not against the bill; and that in the committee it might be altered, if found too severe, in the clauses.

*Sir Robert Clayton* was adverse in an equal proportion, declaring that the wool-growers of the county of Surrey, thought it a sacrifice of their interests to those of the manufacturers—and was  
astonished

astonished how the Honourable Baronet could presume to declare them not adverse to it.

*Mr. Rolle* spoke shortly in favour of the bill, as combining the existing laws in one statute, and rendering them more efficient and intelligible.

*Mr. Hussey* argued in favour of the bill, contending that, although it was undeniable that in a commercial country like this, the manufacturers could not be too much encouraged, and that the bill would add somewhat to that encouragement, yet that it would not turn out to bear hardly on the landed interest. In illustration of this, *Mr. Hussey* reminded the House of the small proportion the value of the wool of a sheep bore to the value of the flesh of the animal; that circumstance alone, he said, proved that the culture of wool was by no means the first object with those who bred sheep \*. He also reasoned upon the probable effect of the discouragement of our manufactures; one fatal consequence, he said, would be a decrease of the population of the country, and that would necessa-

\* And, therefore, to sink the price of wool 100 per cent. is very much for the interest of the grower! Such is the reasoning those honourable members are reduced to, who have unfortunately found themselves obliged to second the manufacturers in all their demands, be they as absurd and unfounded as possible. This error of comparing the value of the fleece with that of the carcass is common, but gross—The fleece forms above 80 per cent. of the net profit of the sheep, and consequently the price is an object of the highest consequence.

rily

rily lessen the consumption, and reduce the price of mutton \*, and thus lower the value of sheep ; an effect which the land owner would feel much more severely than a trifling reduction of the price of wool occasioned by enforcing the prohibitions against smuggling wool out of the kingdom. Mr. Hussey quoted Dr. Smith's *Wealth of Nations*, in support of his argument ‡.

Mr.

\* Here the honourable speaker represents a decline of population, and a loss of mutton-eaters, to be the consequence of this bill not passing: Why? Because 13,000 packs of wool will go annually to France; forgetting the assumed fact, that this quantity has annually gone to France, and yet no want of population, or a consumption of mutton.

‡ What passage the honourable member could find in Dr. Smith to his purpose, is not easy to conceive; and, I dare say, that ingenious author does not dream that his book has been quoted in the House of Commons, as authority for a commercial monopoly, which monopoly he has so expressly condemned, and declared to be violence and artifice. (Vol. i. 4to. p. 290). The following passages also would have illustrated Mr. Hussey's argument:—

“As during their whole lives merchants and manufacturers are engaged in plans and projects, they have frequently more acuteness of understanding than the greater part of country gentlemen. As their thoughts, however, are commonly exercised rather about the interest of their own particular branch of business, than about that of the society, their judgment, even when given with the greatest candour (which it has not been upon every occasion) is much more to be depended upon with regard to the former of those two objects, than with regard to the latter. Their superiority over the country gentlemen is, not so much in their knowledge of the public interest, as in their having a better knowledge of their own interest, than he has of his. It is by this superior knowledge of their own interest, that they have

*Mr. Powys* declared, he neither approved of the present bill, nor of the principle of the existing laws, which it was pretended it was designed to enforce

have frequently imposed upon his generosity, and persuaded him to give up both his own interest and that of the public, from a very simple, but honest conviction, that their interest, and not his, was the interest of the public. The interest of the dealers, however, in any particular branch of trade or manufactures, is always in some respects different from, and even opposite to, that of the public. To widen the market, and to narrow the competition, is always the interest of the dealers. To widen the market, may frequently be agreeable enough to the interest of the public; but to narrow the competition, must always be against it, and can serve only to enable the dealers, by raising their profits above what they naturally would be, to levy, for their own benefit, an absurd tax upon the rest of their fellow citizens. The proposal of any new law or regulation of commerce which comes from this order, ought always to be listened to with great precaution, and ought never to be adopted, till after having been long and carefully examined, not only with the most scrupulous, but the most suspicious attention. It comes from an order of men, whose interest is never exactly the same with that of the public, who have generally an interest to deceive, and even to oppress the public, and who accordingly have, upon many occasions, both deceived and oppressed it.

Were the officers of the army to oppose with the same zeal and unanimity any reduction in the number of forces, with which master manufacturers set themselves against every law that is likely to increase the number of their rivals in the home market; were the former to animate their soldiers, in the same manner as the latter inflame their workmen, to attack with violence and outrage, the proposers of any such regulation; to attempt to reduce the army, would be as dangerous as it has now become, to attempt to diminish in any respect the monopoly which our manufacturers have obtained against us. This monopoly has



enforce. He took notice of its having been stated, that the present system of laws respecting wool, was a complicated system, and that this bill was necessary to simplify and elucidate that system,

so much increased the number of some particular tribes of them, that like an overgrown standing army, they have become formidable to the Government, and upon many occasions intimidate the Legislature. The member of parliament who supports every proposal for strengthening this monopoly, is sure to acquire, not only the reputation of understanding trade, but great popularity and influence, with an order of men, whose numbers and wealth render them of great importance. If he opposes them, on the contrary, and still more if he has authority enough to be able to thwart them, neither the most acknowledged probity, nor the highest rank, nor the greatest public services, can protect him from the most infamous abuse and detraction, from personal insults, nor sometimes from real danger, arising from the insolent outrage of furious and disappointed monopolists.

By such maxims as these, however, nations have been taught, that their interest consisted in beggaring all their neighbours. Each nation has been made to look with an invidious eye upon the prosperity of all the nations with which it trades, and to consider their gain as its own loss. Commerce, which ought naturally to be among nations, as among individuals, a bond of union and friendship, has become the most fertile source of discord and animosity. The capricious ambition of kings and ministers has not, during the present and the preceding century, been more fatal to the repose of Europe than the impertinent jealousy of merchants and manufacturers. The violence and injustice of the rulers of mankind is an ancient evil, for which I am afraid, the nature of human affairs can scarce admit of a remedy. But the mean rapacity, the monopolizing spirit of merchants and manufacturers, who neither are, nor ought to be the rulers of mankind, though it cannot easily be corrected, may very easily be prevented from disturbing the tranquillity of any body but themselves.

He



He denied that it did either the one or the other, So far from it, it rendered the law, if possible, more complicated than before, and did not tend to its explanation. He mentioned Mr. Hussey in terms of high respect, but denied the application of his arguments; observing, that the author he had quoted, was himself an advocate on the other side of the question. After a variety of observations, Mr. Powys said, he had hoped that a subject of so much national importance would have come from a different quarter, and would have been taken up by those persons, whose duty it more immediately was to introduce measures of considerable importance; that not being the case, and the bill then before the House being in his opinion liable to many and great objections, he begged leave to recommend the withdrawing the subject till the next session, when it might be taken up properly by his Majesty's Ministers, and proposed in a committee of the whole House, where the entire subject might be fully gone into, the laws in being undergo a revision, and such a bill be framed as should not do what he should ever consider as the most unfortunate of all things, create a separation of interest between the manufacturers and the land owners, but reconcile both, and meet with general approbation.

*Mr. Wyndham* sat out with shewing what matters had been touched upon in the debate, that were irrelative to the question under consideration,

and which, therefore, he would not go into beyond a certain extent; and having, after a few observations, dismissed them, he proceeded to discuss the bill, which he considered as a measure grounded upon past experience and corresponding with the spirit, though not exactly with the letter of the existing laws. He stated the evidence adduced on both sides the question, and remarked that the whole being built upon hearsay, the testimony on one side was, at least as good and as much to be relied on as the testimony on the other\*. Upon the whole, the bill appeared to him to be so necessary to the prosperity of the manufacturers, so consonant to the principle of the existing laws, and so little likely to injure the wool-growers, that he strongly urged the propriety of letting it go to a committee, observing, that till it was plainly pro-

\* It never was contended from any quarter of the House, that the evidence was such as is necessary on great questions in a court of Justice: Such is impossible, at the bar of a House where examinations are not on oath. But in evidence such as there received, there may be, and is, a wonderful difference—thus Mr. Wyndham's attempt to shew, that the papers copied from the French Custom House books, by gentlemen of character and probity, known to members of both Houses of Parliament here, were not of better authority, than the hearsays of Mr. Anstie, procured no one knows how, or by whom—and brought forward under reserve and concealments—without even the letters being shewn,—and gained to serve the personal interest of the men who use them—an attempt to put such evidence on a par, is curious, and shews clear enough, that when men's minds are made up to certain pitch, evidence has no more effect, than an opera song. Had the Custom-House books been brought by the *comptroller* to the bar, it would have been all one.

posed

posed to alter the principle of policy which had governed this country in respect to prohibiting the exportation of wool for so many years, under which principle our manufacturers and our wool-growers had flourished and grown rich †, and it was expressly stated, it would be a wiser policy to permit the exportation under certain duties, that consideration ought to be laid wholly out of the question. In the course of his speech, Mr. Wyndham reasoned upon the custom of the French to mix two-thirds of their own wool with one-third of British wool, and the argument that had been grounded upon it, that we should do the same if the fact were so; observing that it was idle to entertain such a supposition, because it went the length of inferring that because the French bought our wool at a high price to mix with their own in the manufacture of cloth, in order to make it better if we had it in our power, we should pay them a high price for their wool to mix with ours, in order to make our manufacture worse §.

Mr.

† Here is the old story urged—and urged by an honourable member, famous for the acuteness of his logical talents—We have grown rich in the same period, with the restrictions of our wool-laws; ergo, we have become rich *because* of those laws—this bill is in the spirit of those laws—then this bill ought to pass!

§ This question of mixing wool, has no more to do with the subject, than mixing wool in the moon, unless it is at the same time proved that the wool so mixed is English. If the French  
mix

*Mr. Pulteney* said, the Hon. Gentleman had argued with his usual acuteness, but he must declare that to rest upon experience, we ought to abide by the existing laws, and not add a new experiment by adopting the present bill. *Mr. Pulteney* remarked, that whenever a manufacture diffused itself into many hands it was the uniform custom to raise a cry, that the manufacture was lost. The fact was, it was very much the contrary; the wider the manufacture diffused itself the greater the national benefit, but then undoubtedly the extension was an injury to individuals, as it lessened the size of their profits, and prevented them from acquiring enormous wealth so early as could be done while a manufacture remained in a few hands only. This sort of emulation and extended rivalry, *Mr. Pulteney* said, was the true spirit of commerce; it was that, that made a country great and powerful, and not the sudden riches accumulated by a few persons who had engaged in particular manufactures. People ought not, therefore, to be alarmed at a clamour raised by interested persons, who, because they could not make as much profit as heretofore, were the first to cry out, that their branch

mix good long wool with bad long wool, what is it to us, supposing such good wool is Flemish, Dutch, German, &c. Sir Joseph Banks was, however, right and correct, that if mixing is necessary, we can mix cheaper than the French,



of manufacture was gone. No person who had been accustomed to look into the pamphlets that had at different periods been written on the subject of trade and manufacture, could be a stranger to these facts; and that it might be laid down as a maxim, that when manufacturers were loudest and most clamorous, it was precisely when they (nationally speaking) had the least reason for it. In regard to the quantity of wool exported, being 13,000 packs, or 11,000, or 4,000, or 11,00, it did not strike him as a point of importance to ascertain which was the quantity; it was sufficient to know, that a small surplus had found its way abroad, and to this small surplus he attributed the wool-growers being able to support the rigours and severity of the wool-laws at all. They were a disgrace to the statute-book, and were so framed that if it was not for the small quantity exported illegally, the price would be that of a true monopoly, and sink much lower still. It is idle to urge the illegality, for while the temptation is great, it is known on ample experience, that illicit trade cannot be quite stopt---nor will this bill, if it should pass, stop it. That as to an Honourable Member's quoting Dr. Adam Smith, he could not have chosen an author more pointedly against his argument; for the purport and tenour of his whole work, was to shew, that the manufacturing interest had in these laws, and all similar ones, deceived



and duped the Legislature into a belief of what has been on this question not very applicably asserted, that their interest was always the same as that of land, and procured a system as injurious as could be devised; Dr. Smith, therefore, had written with singular abilities *against* that argument, in favour of which he was now quoted.

The Honourable Member then adverted to a fact which he applied with such success, that not the shadow of an answer was offered to it—a sure proof that it was essentially unanswerable: The Chancellor of the Exchequer replied to one observation of the gentleman, but offered none to this. It was, that all the pretences brought forward by the manufacturers as reasons why the bill ought to pass, took it for granted, that the French underfold our fabrics, by means of buying English wool 100 per cent. dearer than the same wool sold for in England. In opposition to this corner stone and great pillar of their argument, he begged to call the attention of the House to only one fact, so notorious, that he defied any the most strenuous advocate for the bill, to dare to contradict one iota of it.—It was, that the fabrics of Spanish wool wrought in England, underfold the similar fabrics of France wherever they met in competition; he had this from the most undoubted manufacturing authority, and he had it confirmed from very different quarters; he desired therefore to ask where  
the

the necessity arose for giving the manufacturers such a monopoly of English wool as they enjoyed at present, and which wool could never come so cheap to the French manufacturers as it did to them, to the loss of 100 per cent. to the grower, seeing that our fabrics of Spanish wool swept French rivals from every market—yet Spanish wool every one knew, was cheaper in France than in England. That this fact, for the accuracy of which he pledged himself, did away all pretence for this bill on the plea of rival fabrics. He, therefore, contended that the bill ought to be postponed till another session, from which no possible inconvenience could be incurred, but much information in the mean time received.

*Mr. Drake* rejoiced that the House had taken up the matter as they had done; and that gentlemen, without going into a series of prolonged orations, had pithily delivered their sentiments upon the subject. *Mr. Drake* made a few observations upon the arguments of different gentlemen, and recommended suffering the bill to go to a committee, where the objectionable clauses might be amended.

*Mr. Addington* spoke in favour of the bill, and justified the clauses, restricting the counties of Kent and Sussex in a particular manner, by observing that those counties being nearest to the coasts of France, it was more probable that attempts would be made to smuggle wool from them, than any other counties.

*Mr.*

*Mr. Marsham* (member for Kent) spoke against the local restrictions on Kent and Sussex—and declared that they shackled the grower of wool, who was never the smuggler of it. He, however, declared nothing against the principles of the bill; but seemed to admit that the laws were good.

*Sir Richard Sutton* said, when the bill was first introduced, conceiving it to be a similar bill to one before introduced, he had objected to it because the former bill contained clauses so contrary to the free spirit of our constitution, that he could not by any means think it fit to receive the sanction of that House. He had since had an opportunity of examining the present bill, and he found it so materially altered and amended, that he had no objection to it. Sir Richard urged several arguments on the comparative value of the wool and the flesh of the sheep, stating examples of Lincolnshire sheep, which are the largest in the kingdom, and the sheep bred in the northern districts of Nottinghamshire, which are among the smallest, to prove that the wool being only  $\frac{1}{3}$ th of the value of the animal, the depression of the price of it, owing to any monopoly, could not tend to lessen the quantity. That in regard to the clauses which the council at the bar had reprobated for their severity, he saw no objection to them; summary jurisdiction was very useful, and as to juries, it was well known, that confidence ought  
not

not in such cases to be placed in them, and it was better to take these matters out of their hands.

*Mr. Marsham* rose to enter his express negative to so unconstitutional and dangerous a doctrine, as what had fallen from the Honourable Baronet upon juries.

*The Chancellor of the Exchequer* said, that it was in his power to speak but a few words to a bill, on which, however, he wished not to give a silent vote, That he must, in a great measure confess ignorance, for he had not found leisure to examine the facts upon which the question turned; as this was the case, he could speak only to the principle of the bill as it was generally understood, and had been explained in the debate. He said, after the bill had been so amply debated, he was extremely glad to find, that there was not likely to be any difference between the commercial and the landed interest on the present occasion; but that at the bottom every gentleman, let him have taken which side of the question he would, had wished to preserve those interests, as they ever ought, undoubtedly, to be considered as one and the same. That it had been agreed on all hands, that as the prosperity of the manufacturer formed that of the landed interest, so that it would be right, *prima facie*, to pass whatever laws should promote one without materially injuring the other—this had been the policy of our ancestors, and it seemed to be the principle



principle of the bill before the House. That policy, it was well known, had proved greatly successful, for the kingdom, during the whole course of its being rendered as effective as possible, had constantly increased in prosperity \*. That in regard to allowing a limited export of wool, it was no part of the present question.—It ought not to be agitated but after the deepest consideration—he thought it might prove a very dangerous experiment; it would certainly move, if ever brought forward, more disquietude than the object of it was worth—he hoped it would not be agitated †.

The wish of an export, he contended, could only arise from the hope of an 100 per cent. more for wool; but in all expectations of that sort there was a fallacy; a great price increases of every thing the quantity produced, and that increase of quantity sinks the price again, till things find their level; and in this case, of wool, the landed interest, who think they would be such great gainers would, after a little time, find themselves just where they were.

That the present question seemed to turn very much on the quantity of wool proved to be ex-

\* The Right Hon. Gentleman here treads very humbly in the steps of others, and because prosperity and prohibition have been co-eval, *therefore* prohibition has been the cause of prosperity.

† The Right Hon. Gentleman was certainly right in hoping that no question of wool would be agitated, for no other question could come upon the carpet which would seemingly meet him so totally unprepared.

ported



ported, in which there was more seeming, than real contradiction---for the manufacturers who asserted it to be 13,000 packs, declared that to be the quantity from England and its dependancies; but the evidences at the bar, who contended that the quantity was only 1100 packs, included only England, and took no notice of Guernsey and Jersey\*, from which the other account made  $\frac{2}{7}$  ths of the whole---so that there was no real contradiction between them. That in regard to the importance of such a quantity as 13,000 ‡ packs being very inconsiderable, compared with 600,000, the whole growth; that comparison he understood to be fallacious, since it was not to be proportioned to 600,000, the whole growth, but to 200,000, the quantity of that particular sort of wool, the long combing, in which the illicit trade took place. That in this view the quantity of 13,000 was very great and alarming §, for by means of it, 50,000 packs

\* Just the contrary: the accounts of the French Bureau include under the title *Anleterre*, England and its dependancies.

‡ Here he assumes the fact, the contest of which is the subject of the debate: He ought to have given his reasons, as others had done, for believing Mr. Anstie's hearsay better than Sir Joseph Banks' and Mr. Young's positive intelligence.

§ If any one was to read this speech who did not know the Right Hon. Gentleman's talents, he would not believe that any man of sense would dress a professed purpose in a garb so very thin as this is: Having assumed a fact, he now calculates from it, and states the proportion of numbers that have no existence. In doing this

packs were manufactured in France, of that peculiar species, which most successfully met the fabrics of this country in competition; so vast a quantity, therefore, must have a very sensible and mischievous effect upon the woollen manufacture of this kingdom; and consequently the principle of the bill seemed fully founded in the facts which had arisen on both sides.

He observed that if the matter was referred to arbitration, it would certainly be given in favour of the manufacturers; and for this reason; if they failed in their bill, they had, or conceived they had, much to fear. At the same time, if they were successful, they had much to hope for from their success. On the contrary, should the gentlemen who opposed the measure succeed in their opposition, they had nothing at all to hope for, for they would stand precisely where they did. And should they lose their object they had nothing to fear, since the bill was no new measure, and intended only to give effect to old ones. That this statement was nearly correct; because, if what the latter gentlemen urged, was true, that the export is only 1100 packs, they must allow, that the sale of so small a quantity, can be of no material service to them in he makes a dreadful oversight, for forgetting that 13,000 packs are a fact in contemplation for the future, but pretended to be ascertained from the past, he reasons on what *will be* the effect should the bill not pass: and he states that to be it, which is past, and from which no such effect has flowed!

raising

raising the price of wool; and, therefore, when they attempt to shew that the export is so small, they, in effect, shew that there is no real objection to the bill \*; and being so small, the wonder is, why they should so hotly oppose a measure designed to lessen, what according to their own account, is of no value to them. That the argument of an honourable member, (Mr. Pultney) who always speaks with the greatest knowledge and information, that the illicit trade is of value, because it finds a market for a surplus, could not be received, since that market was an illegal one; and the existence of one branch of illicit trade encourages others—so that it is always an object to put an end to any.

*Sir Peter Burrel.* I pay too much reverence and respect to the decisions from that chair, not to feel very considerable pain, lest in the prosecution of this business I should lay myself open to a similar reprimand to that which fell from you, Sir, and was addressed to the learned and eloquent council, who opened the case of the petitioners against this bill. He was told that he must draw no conclusions from the circumstances and situations of those persons who appear upon the evidence of your reports to have been the first promoters of this bill, for the

\* The bill ought to pass *because* the export is *so great* as 13000 packs. The bill ought to pass, *because* the export is *so small* as 1100! Reconcile these apparent contradictions, gentle reader, if thou canst. They surpass my capacity far.

bill

bill having been read a first time was become the bill of the House.

It seems, however, to be decided, that with regard to the evidence, it is different, and that the learned council who appeared at your bar, in support of this adopted piece of deformity, had a full right to insinuate against the character of the witness, where the evidence cannot be controverted, and to advance facts concerning the man, which he was not prepared to prove, to draw conclusions which were not warranted, if the facts were proved; for no other purpose than to shake the credibility of a witness, whose character as a man stands unimpeached, and whose works as an author are as much admired by the public for their candour, as they are for their utility and intention. I was happy to hear the learned council so particular in his cross examination of the respectable persons who appeared at your bar, as I knew such an investigation was for their honour and the public welfare, I say it was fortunate for the cause, in which I stand here a weak and unworthy advocate, being convinced, that the more the subject which the learned council was called to defend is examined, the more disgust it will create—as all regulations which originate in principles unjust and erroneous, will, in all their consequences, be found strongly to partake of those first principles. Glad indeed should I have been had the learned council called the chairman  
of



of the committee of manufacturers, who might in his turn have submitted to a cross-examination from your petitioners council: perhaps the learned council was in reality too well convinced of the weakness of his own cause to risque such a proceeding.

After all the studied neglect which has been shewn to all the arguments and sound constitutional doctrine which a few of us were fortunate enough to hear from the eloquent and respectable council who have pleaded at your bar in this cause, what a presumption it is in me to detain the House even for a moment, nor should I do it, did I not feel that it is my duty in proportion to the negligence which has been shewn by the House, to endeavour at least, however unequal to the undertaking, to recapitulate some of those arguments, though stripped of all the beauty which their eloquence supplied, and attempt, as far as I am able, to put the House in possession of those grounds on which this important question ought to be decided. This question comprehends the welfare of the woollen manufactory, and the essential rights of the landed interest, and the bill, by its clauses, attacks the rights and liberties of every British subject; to such a bill I need hardly state, the Minister's attention is most peculiarly called, and though other business, more pressing, perhaps, but certainly not more important, has hitherto prevented any public attention from



Government to this subject, I will never presume that the nation at large will be deprived of a complete unequivocal opinion upon a subject of such magnitude from those by whom they are governed. All I desire is impartiality in the case, and a better advocate in its defence. I wish to meet the manufacturer upon every ground, but let reason and truth dictate the decision.

One great objection to this bill is, that if it passes, it will appear a recognition by the Parliament of 1788, of the principle of monopoly in this instance; an objection so strong, in my mind, that had it only reduced the existing laws into one, it would be a sufficient reason for throwing it out.

The Right Honourable the Chancellor of the Exchequer has stated to the House, that he gives no decision at all upon the question of limited export, upon that great question which really forms the true principle of this bill; he has not yet made up his mind, he confesses he has not studied the clauses, but has condescended to argue a little upon the evidence—the Right Honourable Gentleman has taken for granted, the only thing in dispute, and has built a great deal upon a foundation which exists only in the imagination of Mr. Anstie—the Right Honourable Gentleman assumes from the evidence, that 13,000 packs are smuggled, the evidence offers proof of but 2,300, the remainder

remainder stands upon the simple assertion of Mr. Anstie, who might just as well have amended his evidence again, from thirteen to thirty, or any other quantity he thought fit. Though the arguments are very ingenious, yet as the data on which they are formed, are good for nothing, I need not take up the time of the House in examining them, and as I have been attending my duty in the environs of this place, ever since 8 o'clock this morning, I feel full as little inclined, Sir, to prolong your sitting here as any gentleman who hears me.

The Right Honourable Gentleman has taken upon himself the character of a mediator between the contending parties, but not having examined the case, he seems to think it the safest way to give every thing to the party which makes most clamour. I think he might have been satisfied with stating in his argument the real quantity of smuggled wool as proved by the evidence, viz. 2,300 packs, though it would have been more consistent with the character of a mediator to have looked at the quantities of smuggled wool, as proved by the opposers of this bill, viz. 1,100 packs, and to have struck some medium between them, but it suited the arguments which he was stating, in their favour, better to adopt at once Mr. Anstie's assertion of 13,000 packs—and finding that quantity too contemptible to merit attention, he was obliged to state, that by this means the French

were enabled to work up three times that quantity of their own wool, which brought of course a large quantity of goods to contend with ours in the market. The absurdity of this doctrine is absolutely proved to demonstration by Sir Joseph Banks's evidence, and for its existence we have nothing but the opinions of Mr. Anstie and some of the persons giving evidence, whose opinions are absolutely contradicted by the best writers on the subject—for these, Sir, were the foolish arguments which were insisted upon with respect to all English wool, in order to obtain the first prohibition, though now given up by the manufacturers themselves; with regard to the short clothing wool, and which it will be proved by and by, are as little applicable to the long combing wool—I contend, Sir, that the promoters of this bill, have by their evidence made out no case whatever, and consequently are entitled to no new regulations—if this bill goes forward, I shall feel it a duty incumbent upon me in some future stage of it, to go more at large into the subject, but I hope, Sir, this night will put an end to it, and save both the House and me that trouble.

*Mr. Burton* said, called upon as gentlemen of his profession had been, he rose to declare, that in his opinion, the bill, instead of enacting new and more rigorous restrictions than those contained in the existing statutes, changed the punishment of offenders

enders convicted from transportation to the more mild sentence of fine and imprisonment! the bill therefore was rather a relaxation of the established severity of the law, than an enforcement of additional rigour. After a few more words, the House divided,

<i>Ayes</i> (for the original question)	112
<i>Noes</i> -        -        -        -	47
	<hr/>
Majority	65

The bill was ordered to stand committed for that day se'nnight.

May 28.

The order of the day for the third reading of the wool bill having been read, and the question put, "that this bill be now read a third time,"

*Sir John Thorald.* Having on a former occasion expressed my sentiments with respect to this bill, I shall now detain the House but for a single moment. If the inefficiency of the existing laws had been clearly proved, by an export of wool, so considerable as materially to injure the manufacturers, it might have afforded a reasonable ground for their attempts to alter them. Let us consider then, what has been proved: the annual export, for five years, of 1,100 packs, and in the last year of 480; fewer seizures and convictions than under any other similar penal statute; and at present, a larger export of woollens than in any former period; the

plea, therefore, of a necessity for alteration, cannot, I think, fairly be urged.—I shall not trouble the House with any discussion whether trial in a summary way, be preferable to trial by jury? Whether the power granted to Justices, to impress, fine, and imprison witnesses, be a mild measure? Whether a wharfinger ought previously to enter a bond of 200l.? Or whether the gracious grant for a limited exportation of tobacco-pipe clay, will sufficiently atone for, or be able to cover the multitude of sins, under which this miserable bill now labours?

I object, Sir, to the principle of this bill, which I contend to be incorrigibly bad, originating in the mean and rapacious spirit of *avarice* and *monopoly*, and consequently producing acts of *injustice* and *oppression*, a spirit which has uniformly pervaded and contaminated all the legislative attempts of the manufacturers, from the first session of their *little Senate* at Exeter in 1786, to the dissolution of their *Festive Board* at the Crown and Anchor Tavern, in the Strand.

To-morrow, Sir, the highest tribunal in the kingdom will again assemble, for the purpose of enquiring, whether the rights of humanity may not have been invaded in the East; a tribunal convened at the request of this House. The House also stands pledged, early in the next session, to take into consideration, how far it may be expedient



dient to abolish slavery in the West-Indies. What then will be thought of our sincerity and consistency, if, whilst we are so anxious to dispense the blessings of freedom abroad, we should at the same moment forge new chains for the establishment of slavery at home ?

Should this bill pass into a law, our liberty, and a security in our property (hitherto our just pride, and the envy of our neighbours !) will become a fit subject only, for their derision. For instance, a Frenchman may then say to an English wool-grower, "Your wool is certainly your property while it remains useless in your chamber ; attempt to remove it, or sell it to the best advantage, and an exciseman will soon convince you that your property will terminate in a fine, and your liberty expire in a dungeon. Talk no more to me, I beseech you, of your English rights and property, of your *Libertas & natale solum*. Fine words ! I wonder where you stole 'em. To these humiliating taunts, the manufacturers may, perhaps, be able to give some answer ; because, they have prudently exempted themselves from being accountable to any one, for the purpose to which they may apply their wool ; but they have at the same time effectually disabled the wool-grower from a possibility of reply.

The revival and recognition of obsolete penal statutes, founded on principles of despotism, is of itself, a very serious evil. With a view to local

accommodation, you may alter, soften, and meliorate the clauses of this bill; to what purpose will it be, whilst the principle remains? From the polluted source of despotism the pure stream of liberty never can flow. Esteeming it, Sir, a duty which I owe to my country, to resist a principle so injurious to the rights, and so insulting to the feelings of every Englishman; I shall therefore now take the liberty of moving the Previous Question; or, in other words, "That this bill be read  
" a third time this day three months."

*Sir Peter Burrel.* In the consideration of this question, I well know the inveteracy of the evil I shall attempt to expose, as well as the powerful interests by which it is cherished.

Conscious, however, of the strength of the cause, I forget for a moment the weakness of its advocate, but I hope those who hear me, will in their decision, consider only those ends which have induced me to step forward, and look to nothing but the true interest and real prosperity of the British empire.

I stand here, Sir, professing myself an enemy to every system of oppression, whatever specious appearance it may put on; convinced that freedom and happiness are so joined in their very essence, that as you recede from the one, you lose the other.

I shall not contend as to the quantum of encouragement, operating as a bounty, which it may be proper to give, to the woollen manufacture; I shall  
only

only endeavour to point out, that it does actually obtain a very great one, but that the mode in which that is raised, is partial and unjust.

Convinced as I am of the mutual dependance the great divisions of the State have on each other, no man living is more desirous of supporting the true interests of the manufacturer than I am, but I can never consider myself as acting in conformity to that opinion, by maintaining so destructive and short-sighted a principle, as the present bill in my judgment contains.

The interest of the nation, as far as respects its manufactured goods, consists in the collective interests of all its manufactures.—If you want to command the market of the world, you must have an assortment of merchandise equal to the demands of that market; you cannot decide or confine the wants of mankind—The true interest of trade, is to increase and supply them; the complaints of any individual manufacture should be attended to, but they should be heard with jealousy and distrust; for, on examination, the principles of each manufacture will be found as narrow and selfish as the true policy of the state should be liberal and extensive.

I can never subscribe to the doctrine that the grower of wool is so much obliged to the woollen manufacture as to make it either necessary or just to force him to resign half his property, in return. The benefit is common to the nation, and should, therefore,

therefore, be bought, at the common expence; whatever encouragement is necessary should be given in the shape of a bounty from the nation at large. I am not pleading for an exemption in favour of the landed interest; the landed interest will, I am certain, chearfully contribute their quota, but that it should be loaded with the whole burthen merely because it has been able to stagger along, for some years under such a weight, is as little consonant to true policy, as to the immutable laws of national justice.

Perhaps there is no form which oppression puts on with half the success it does the form of monopoly: here the immediate benefit to the Few is insisted upon with energy and perseverance, the oppression on the many not being completely understood, little opposition is made; fatal experience in vain discovers the evil, whilst prejudice and clamour support, what error and injustice gave birth to.

The best writers on Commerce hold monopoly in abhorrence, and give it as their opinion, that where trade is found to flourish under such restrictions, it is a proof other circumstances are so favourable, that its success is not from the support of monopoly, but in spite of its baneful effects.—Let us now look at the particular monopoly the present bill is brought in to support, before we examine the bill itself, or the evidence on which that bill is justified  
—“ Every

—“ Every thing useful to the life of man, arises  
 “ from the ground, but few things in that condi-  
 “ tion which is requisite to render them useful.”—  
 Hence that inseparable connexion between cultiva-  
 tion and manufacture, which of course makes the  
 success of the one depend upon the prosperity of  
 the other.—The moment partiality begets unwise  
 restrictions on either, the health of both will be pro-  
 portionably affected. Where a preference must be  
 given, it should certainly be to cultivation, with  
 very few, or perhaps no exceptions; cultivation is  
 the surest and most efficacious source of wealth;  
 every other pursuit is in some degree factitious; the  
 necessaries of life must ever remain the primary  
 object. The raw material for manufacture must  
 be raised at home, or acquired from abroad, before  
 it can be used;—to raise it at home is certainly the  
 best method of obtaining it—to encourage industry  
 in raising should be our first endeavour—the incite-  
 ment to industry is price—the consequence of in-  
 dustry is increase of produce. No moral turpitude  
 is attached to the selling wool to a foreigner; on  
 the contrary, if a better price can be gotten for the  
 produce of the land, it is praise-worthy so to do,  
 until the laws have declared it to be a crime.

When the Legislature restrains the wool-grower  
 to one market, if by going to another he could  
 have obtained a better price, a tax is levied upon  
 him equal to the difference of those two prices, and  
 that



that tax is taken from the wool-grower and put into the pocket of the manufacturer—but by lowering the price you discourage industry, and of course diminish the quantity produced ; but quantity is the great object of every manufacture ; this regulation, therefore, by lowering the price of wool, defeats its own end.

Here I must beg gentlemen to consider the difference between the cheapness of a commodity which is the effect of plenty, and that occasioned by the want of a fair market ; in the first case, what is wanted in price is made up in quantity, but that for which a man receives no consideration, he can pay neither rent or taxes, the price of labour, or encourage by his expence any sort of circulation ; and if you destroy the price of a hundred tods of wool, it is the same to the wool-grower as if you destroyed that quantity of wool itself ; and yet this is the admitted state of the case by the supporters of this bill.

From the happy situation of this island, it is so peculiarly adapted in point of climate and soil to the production of sheep, there is little doubt but the quantity of wool might be increased to an enormous degree.

Agriculture has no where reached perfection ; much remains to be improved in every county throughout the island.

Great

Great exertions have been made, and are still making, towards the amelioration of short wool; and those who are competent judges have no doubt of obtaining a much greater degree of success than could possibly at first have been expected. The confinement of the market must soon put an end to the spirit of improvement, as after the general divisions of wool have taken place, little or no difference is made between the wool of A and B, but a general average price is paid for each species, and consequently the good wool pays for the bad.

Open the market, the demand will increase; the demand increasing, the number of sheep will increase, as well as the improvement of wool; but the number of sheep increasing, the price of provision must fall, since the carcass must be consumed at home; and as the farmers profit is made up of the wool, and the carcass, let the fair share of the profit be borne by the wool, and the carcass will be proportionably cheaper.—

Again—as no manure is so prolific as that arising from sheep, the encouragement of sheep will be the increase of corn—and lest any apprehension should arise that too considerable a proportion of land would be turned to pasture—I must observe, that pasture is either natural or artificial; natural pasture will no way produce so great a value; artificial lays must, from time to time, come under the plough: but of this we may rest satisfied, that  
 whatever

whatever is most beneficial to the farmer, will be most beneficial to the nation, provided the crop improves the land, which sheep certainly do.

Here then we see, that in an improved and improving state of society, plenty is the natural consequence of liberty—but plenty of provision produces cheapness of labour, and dearness of labour is what the manufacturer most complains of—How then can a manufacture be more effectually encouraged, than by such means as increase the raw material, and decrease the price of labour employed on it?—The manufacturers boldly assert wool is too dear, though they admit it is 100 per cent. below the European price.

I do not believe a single object of British manufacture can be pointed out, where the raw material is at equal price, in which the foreigner is not underfold in the market for the goods; nay in many cases where the raw material is dearer, he is still underfold. Art and ingenuity, assisted by capital, are superior to all competition;—Why then is the woollen manufacture to be an exception to this general rule?—As yet neither argument or proof has been offered on this head.

This monopoly naturally divides itself under two heads, the first respects the short or clothing wool; the second the long or combing wool;—essentially differing from each other, in-as-much as it is admitted, the French can, and do obtain large quantities

tities of better clothing wool than ours from other countries, in addition to what they grow themselves ; if then the French do obtain clothing wools from other countries, the manufactures from such wools equally meet ours in the market.

Could England therefore produce more short wool than the English could use, it is self evident, that England had better sell that surplus to France, than sell her nothing, and let France buy an equivalent quantity of wool from other countries.

To render it impossible for any but the surplus wool to go, it would be easy to lay such a duty on the export, as would ensure the pre-emption to the British manufacturer—secure to the wool-grower, the European price, to which he is entitled by every rule of reason, justice, and sound policy,—pay a tax to government, and effectually put an end to this branch of the smuggling trade : If this were so, England must soon raise all the wool France wants to buy.—The European price is 100 per cent. above the English ; but that is the lowest price other countries can afford the wool at ; otherwise a competition between them would lower the European price—But the English could supply the market 50 per cent. cheaper, and still be greater gainers ; consequently, as long as they were able to furnish the demand, must drive all other wool out of the market.

No solid argument can be brought forward against this doctrine; the manufactures are so well aware of its truth, they have not even presumed to offer one.

It is on the long or combing wool they found all their hopes—They say France cannot obtain that from any other country; consequently if you stop the material, you annihilate the manufacture—Now, Sir, the first assumption is false; France grows long wool by the confession of the principle evidence, as good, nay better than the English—If she can produce it, but does not get in sufficient quantities for her own use—will you force her into the cultivation, and encourage her agriculture at the expence of your own?—I need hardly press for the answer to such a question: large quantities of long wools from other countries are to be bought in the market of Amsterdam; there is in fact as little reason or argument against exporting the surplus combing wool, as against the surplus clothing wool.

But admitting for a moment their statement true, I will contend on the experience of ages, that price is always superior to regulation, and if the French will give the price which they will do, (if it be as necessary to them as our manufacturers pretend) no law can stop the smuggler, however it may oppress the wool-grower.

I will



I will go farther; if it were possible to stop the smuggler, it would then become a question, how far it was politic to refuse France a share of our wool at the price she is willing to pay for it, as differences between the French and English price is just so much money taken from the wool-grower's profit, and consequently from the agriculture and cultivation of the kingdom.—I shall now state, as nearly as I am able—what the loss amounts to.

They reckon the annual produce at 600,000 packs, each pack contains 240; a tod is 28lb. therefore 600,000 packs contain 5,142,857 tods: Long wool amounts to one-third of the whole, 1,714,285 tods, worth twenty shillings a tod, or 1,714,285l. but the European price is double; the loss, therefore, on this article is annually 1,714,285l. which is absolutely taken from the pocket of the wool-grower, and given to the manufacturer.—If I am told this is a price, they will give (only) for a certain quantity, I shall answer, since their manufactured goods meet ours in the market, as far as that quantity of wool produces, it is fair to reason, that could they manufacture more goods, they would still pay the same price for the wool, but of this we may be certain, that if there is no temptation from price, the wool will never go, although this unjust monopoly be withdrawn.—To shew it is not a smuggling price, we can prove from the Bureau de Balance, that the French average price fell as the English price rose—The reverse

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would

would have taken place if necessary to tempt the smuggler; I must add also that the evidence of the manufacturers, (p. 6, 2d. Report,) brings offers from France, without any limitation of quantity.

But the goods when manufactured from long wool are worth five times the English price of the raw material;—one hundred per cent. on one-fifth, is 20 per cent. on the whole, thus a tax is levied in the first instance on the wool-grower, and given to the manufacturer, which operates as a bounty of 20 per cent. on the entire produce of his manufacture, home consumption, as well as exported goods.

The two other thirds of the 600,000 packs, fine clothing wool 100,000 packs, at 16l. per pack, will amount to 1,600,000l. ten per cent. is lost upon this, or 160,000l.—Coarse clothing wool 300,000 packs, at 8l. per pack, gives 2,400,000l. on which there is fifty per cent. lost, equal to 1,200,000l. therefore the whole loss to the landed interest will stand thus:

	£.
Fine clothing	160,000
Coarse ditto	1,200,000
Long combing	1,714,285
	<hr/>
	£. 3,074,285
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Which sum taken together, and compared with the gross export, operates as a bounty of above 90 per cent.

The

The effects of extensive commerce are low interest, at low profits.—If this bounty of 90 per cent. is no more than a sufficient encouragement to the woollen manufacture, let them have it, but since the nation reaps the benefit, let the nation pay the expence; and when they see the true value and amount of it, in its real shape, that of a bounty, they will then judge of the propriety of paying it.—It is now for the first time, the friends of this measure have dared to put the question upon its true ground, and have distinctly stated the object of this bill to be the depreciation of wool in the English market; we are not much obliged to their candour however—for if they admit the European price of wool, and the loss of property to the wool-grower, and they deny the European price, they take away the necessity for such a bill, as nothing but price can carry the wool abroad.

Had this been the original argument for such a measure, the House would not now have had the trouble of listening to me; for no such regulation could ever have passed into a law.—It is hardly necessary I should prove, the landed interest were formerly in possession of that first of privileges grounded on the soundest maxims of law, to wit, that every man has a right to make the most of his own property. The landed interest exported its

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wool,

wool, and the country drew a great resource from taxing that export.

Had the manufacturers of early days, in their application to Parliament, stated, we want the wool-growers wool, and we want it at half the price he gets for it now;—do you, therefore, make such a law as will oblige him to sell it us on those terms.—Could such a proposition in a free country have been supported? Or could any body of people, who had sense and feeling sufficient to know what freedom was, have been found base enough, tamely to submit to such an oppression, had the Government thought fit to inflict it? Those who brought forward such a proposal, would not only have been under the necessity of proving the impossibility of their existing as a manufacture without such a benefit, but also that it was the interest of the wool-grower to give up half his property, to ensure that existence; without such proofs the measure would have been an absolute robbery instead of a wise regulation.

The manufacturers of that day knowing it was impossible to prove either of these positions, from the impossibility of answering the first question any man of sense would have put to them; viz. By what means have you advanced your manufacture, to its present flourishing state?—and the obvious conclusion—if such enormous encouragement was needless in its infancy, how comes it is necessary, for  
its



its meridian greatness—found it requisite to take other ground, and had the address to persuade the nation that wool would be increased in value by granting a monopoly. The experience of above an hundred years has demonstrated the contrary.

It is evident they did without a prohibition; they began, and they flourished without one.

On false premises and false conclusions they took away the rights and property of the wool-grower. They are now come to Parliament to render that monopoly still more burthensome by new and more oppressive regulations—asserting the old laws are inadequate: They are called on, therefore, not only to prove the assertion, but the principle of the bill.

I say Parliament has no right to take away the property of the subject, but for the necessity of the State, without paying him the value in return.

The manufacturers admit the loss of property to the wool-grower, I call, therefore, on the manufacturers to prove, their necessity comes within the description of a State necessity—that the remedy they have pointed out is just and equitable, and that according to their assertions, the existing laws have in fact been found inefficient.

We have nothing to do with their theoretical reasonings on those laws; their inefficiency must be proved by undoubted facts.

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Luckily,



Luckily, Sir, for us, proof has been offered, and we are indebted to a laborious and expensive application from a committee of manufacturers to this subject, during the space of four years. The House is in possession of the fruits of that labour and expence.

By what original right, or from what principle of justice, is the manufacturer to tell the landowner, the particular mode of cultivation he should follow? For example; that he should not inclose, because he spoils a sheep-walk;—though he raises the value of his land from 1s. 6d. and 3s. per acre, to 7s. and 14s.—that he grows his wool too coarse; or, in other words, that he should impoverish his land, to improve the fineness of his wool.—If Parliament likes the principle of bestowing artificial helps to commerce, they should institute a bounty from the nation, not perpetrate a robbery on the landed interest:—Let us examine this bold assertion of the laws being inadequate, by a test that will discover its truth, and ought to decide our judgment.

A law may be weak in itself, ill executed, or the offence so difficult to detect, that though the law is severe and well executed, it may have but little effect.—On examination, we find the thing to be smuggled bulky, therefore difficult to conceal; the laws severe, and the quantity proved to be smuggled; so small as to afford the strongest proof of their execution and efficacy, beyond any other of  
the

the revenue institutions, for absolute perfection can never be expected from finite beings.

When we examine the evidence given by the oracle of the manufacturers, I am ashamed to insult the patience of the House by repeating it.— We find him stating the laws as inefficient, yet confessing his absolute ignorance of what those laws are. He demands more ample powers, though he acknowledges he has not made use of those already given.

I am convinced this statement of facts would be quite sufficient to determine the merits of the case, but I must beg the indulgence of the House for a short time.

If this bill passes, it is worth while to examine what is gained and what is lost to the individual as well as to the nation:—

The highest gain to the manufacturer is twenty per cent. but the loss to the wool-grower is an hundred per cent. so that on their respective properties the wool-grower's loss is five times as much as the manufacturer gains: To say this is made up to the wool-grower again by the sale of the remainder of his produce is a fallacious way of arguing; the grazing farm would pay the tax, the corn farm gain the benefit. He comes in, with the rest of the nation, for his share, in the common benefit of the prosperity and population of the nation; and receiving no more than his share, should be loaded with no

more than his proportion of tax towards its encouragement†. To argue this point would lead to great detail, but it seems to me impossible to deny it.—The manufacturer has the monopoly both ways; he makes the wool-grower sell his wool cheaper than at any other market, and obliges him to buy it dearer, when manufactured into cloth, than at any other market.

The next form this monopoly shews itself in is, by extending its oppression to the poor employed in spinning; and here it is necessary to remark, that from the time of its taking place, not only wool has decreased in price, but poors' rates have increased in magnitude, so that this ingenious system has raised the demands on land at the very moment in which it has lowered the means of answering them†. The increase of poors' rate so loudly complained of, is, in my opinion, to be referred in a great measure to the monopoly on yarn.

The market for yarn being confined, the yarn-dealer imposes what price he thinks fit on the spinner and the poor, who, though willing to work, find it impossible to gain sufficient for their support.—The wool is sorted, and the yarn-dealer directs the spinner to spin such a number of hanks or skeins to the pound, according to the quality of the wool.

The yarn dealers interest, and the weavers interest are by no means the same—The yarn dealers  
interest

† Excellent observations. A. Y.

interest is to have all wool spun as fine as possible—The weavers to have an even thread, and according to the quality of the wool.—When a pound of wool is spun to a greater number of hanks than its quality is fit for, the wool is said to be spun out of course—but the yarn dealer in general makes the bargain with the spinner in the following manner :

He sees, or furnishes the wool, and directs such a number of hanks to be spun to the pound—but for every hank short of the number the pound has been set to produce, the spinner forfeits a certain proportion of his wages.—From the meanness of the original price and the forfeitures frequently arising from the impossibility of spinning the wool as much out of course as the yarn dealer has ordered—the poor spinner finds, that incessant application will not procure bare subsistence.—Cut off from the resources of honesty, industry, and disgusted by labour without reward, he is under the necessity of applying to his parish for that support, he would willingly have earned.—The yarn dealer's profit is increased by the double effect of the fineness of the yarn, and the lowness of the wages—but the yarn being spun out of course, is difficult and bad to weave, the stuffs made from it good for little;—the badness of the stuffs brings discredit on the manufacture, and consequently lessens the home consumption.

The



The cotton contends in the market with all the attractions of colouring and beauty of design, and the consequences of the temptation on one hand, and bad quality on the other, is a firm persuasion, that the stuffs, though apparently cheap, are so ill made that no one can afford to buy them at any price whatever.—The manufacturers knowing the yarn-dealer must sell to him, or not at all, puts what price he pleases upon the yarn, as he has before done upon the wool, and his generosity in this last instance is fully equal to his public spirit in the first—but the manufacturers price must always decide the spinners wages;—as an excuse for making that price still lower, he reproaches the yarn-dealer for spinning out of course, and gives an average price for the yarn, as he has before for the wool, in which the good pay for the bad—What an incitement this to honesty and industry.—Open the market for yarn under wise regulations, and you will soon feel a more powerful effect on your poor-rate, than from any alteration of the poor-laws themselves.—When the wool is spun, the manufacture is half completed, this, therefore, can never be called the export of the raw material---Various other modes of oppression arise, but I have confined myself to the most striking, from their baneful effects on the industry, cultivation, and produce of the kingdom at large.

If



If the manufacturers can afford to give the fair European price for the wool and yarn, there is no danger in withdrawing the monopoly;—and that they cannot, we have only assertion unsupported by argument, much less substantiated by proof—Export, expences, and a small duty, with the protecting duty of twelve per cent. by the commercial treaty, will effectually secure the home market for wool, and the home consumption for woollens, and a bounty on the exported manufacture, will protect every thing else.—Should it be argued that notwithstanding all these politic and fair advantages, Foreigners would still undersell them; it must follow, as an unavoidable conclusion, that the woollen manufacture is a bad application of the nation's stock, which one description of men, viz. the wool growers, bears the whole loss of, without having the smallest direction or controul over that application.—Can any absurdity in politics go beyond this? I am not arguing for or against a bounty to the woollen manufacture; all I am contending is, that the present mode of granting it is unjust, and impolitic. I have stated what the Bonus is, the manufacturers are contending for—that it amounts to above ninety per cent. on their whole export;—that from the unjust mode in which it is levied on the community, those who pay it, lose in proportion to their respective properties, five times as much as the manufacturer gains.

Let

Let us now look at the evidence of an existing evil which this bill is to remove.—I must premise where a great benefit is to be obtained, all the evidence brought forward by the party to be benefited, should be examined with a scrupulous attention, amounting even to suspicion, from the known propensity that every suitor has, on every occasion, to make the best of his own story. The evidence, from its being *ex parte*, should be perfectly conclusive, or it is good for nothing. I should first ask the manufacturers what brought them hither?

Does their manufacture decline?

Has smuggling arisen to an alarming height?

Does it essentially prejudice their manufacture?

Is the evil sufficient to require so violent a remedy?

So far from their manufacture having declined, it has increased: for the proof of smuggling we must look to their evidence;—for the mischief that smuggling occasions, to their invention.

And as it will be found the facts asserted are nowhere proved, I need hardly add, no remedy is required.

If the manufacturers brought their evidence to prove the French manufacturers wish for our wool, it is so natural for all manufacturers to wish for good wool where it can be had cheap, it would be ridiculous to offer proof on that head;—but the French never dreamed of obtaining it at the English price.

Did

Did they mean to prove that wool was smuggled—a proposition no one would deny.

They knew, though it would not be necessary to prove these general propositions, they would at least be expected to prove these particular assertions, that smuggling was alarmingly increased;—the prejudice to the British manufacture great—the present laws inefficient to their end—the new bill adequate, yet no more than proportionate to the evil.

With regard to the evidence brought forward by the manufacturers, it is in my mind so much below contempt, that I shall not take up the time of the House by going into it at length.

It was undoubtedly necessary for them to prove their case; they have attempted it—and it is equally certain they have failed in the attempt:—But their having failed after four years laborious investigation—in which neither pains or expence have been spared—affords, independent of contradictory evidence, the strongest presumption that no such evil exists.

We must examine their bill for what they wish to obtain, as well as the manner of obtaining it; we must examine their evidence for the necessity of granting any thing on such terms.

Captain Sharpe, on whose evidence so much has been insisted—though a man of honour, and an excellent seaman, is, nevertheless, a most detestable legislator;—

legislator;—accustomed to the discipline of a ship; we are not to wonder at his forgetting for a moment, the civil rights of his fellow subjects on shore. He says the present laws are inefficient, but how far he is qualified to give such an opinion does not appear.

He tells you he is desirous of subjecting every farmer's house in Great-Britain to the visits of the Excise officers; and in the same breath makes a complaint of the inattention towards executing the laws, as they now stand.

He makes the smuggling into Boulogne alone amount to 13,405 packs per annum, a number greater than exists even in the warm imagination of Mr. Anstie, as the whole smuggled from England, and he gives his evidence, from hearsay, to the same amount, in the port of Dunkirk, and that the wool is carried over in open fleece.

It is true indeed he owns afterwards he had no means of examining from whence the smacks he saw at Boulogne came. Nor does he mention from whom the information came respecting Dunkirk.

This gentleman's opinion that all other smuggling depends on wool, affords, perhaps, a very just criterion for judging, what weight is due to his other opinions, on law and trade; for one, I own his principles of law and his doctrine on revenue, carry very little conviction to my understanding.

The



The paper given in by Sir Joseph Banks directly contradicts Captain Sharpe's evidence.

Let us examine the general features of the evidence given on this subject by the promoters of the bill and the petitioners against it.

The evidence of the promoters consists in opinions from a chairman of the committee of manufacturers; grounded on accounts delivered in by a spy; supported by general parole evidence of persons speaking generally from hearsay, though in some few instances from casual observation, though without fixing any determinate quantities.

The written evidence delivered by your petitioners, consists in accounts delivered in from correspondents, purporting to be copies of several Custom-house accounts—an authentic paper, purporting to be an official return, respecting all the English wool imported into France.—From the extreme facility with which the French can command such a return, there is no reason whatever to suppose the paper incomplete, and from the smallness of the French duty, there exists no temptation to evade it.

The first returns from the French Custom-houses, delivered by A Young, Esq. with the names of the persons from whom they were attained, are surely as authentic as the papers of a spy, who shrinks from your knowledge and from all enquiry.

Mr. Young's returns, very nearly correspond  
with



with the papers delivered by Sir Joseph Banks—and both these papers borrow additional support from the seizures at the English Custom-house, where the quantities seized, bear a better proportion to the quantities stated to be smuggled by your petitioners accounts, than to the quantities under the bold assertions of Mr. Anstie, or the loose conjectures of Captain Sharpe; it is necessary to observe also, that the quantities proved to be smuggled by the report, are nearly the same, as those represented by your petitioners. It is Mr. Anstie's opinion that makes the difference.

Why then, Sir, if we find all the circumstances in your petitioners account, though from different quarters, corroborating each other, and absolutely contradicting the evidence offered by the report upon your table, the parts of which afforded each other no such support, but exactly the reverse, we must on the balance declare, that the evidence is against the bill;—when we compare argument with argument, evidence with evidence, opinion against opinion, and proof against proof, the whole substance of this report, which is the only ground for any application to Parliament is absolutely destroyed, and consequently the bill ought not to pass;—but when we examine the bill itself, we shall find ample reason for rejecting it, even if the original ground of complaint had been made out:—The manufacturers take for granted, the principle

principle of monopoly is good, because it is lawful, and from their bill they seem to conclude, provided the ends be lawful, the means, be they what they may, are justifiable. I object to this bill in general, from its being calculated to render this odious system of monopoly still more burthensome, by new and oppressive restrictions on the wool-grower, against whom no delinquency has been proved in any one instance, and who, from the nature of his calling, never can be the exporter: The moment the wool reaches the manufacturer's hand, there is no further check on it, he is not obliged to account for its use;—that by the regulations of this bill the transport of the raw material from market to market in this kingdom will be exceedingly embarrassed; and I know of no greater impediment to trade, than the difficulties of transport and carriage; perhaps the principal clog on French commerce arises from the various duties and regulations between province and province, which so impede its internal circulation, as to render it almost paralytic in every member; and yet in this instance we are imitating their blunders. The bill has altered one of the first principles of the common law; viz. that every man is deemed innocent, till proved guilty; instead of which, the wool is to be seized, and the accused to be treated as guilty, unless he shall prove his innocence, which, in many cases, may be utterly impossible. What is it that renders the ex-

cise laws so odious? It is because they break in upon and violate our dearest and most sacred rights.

Mankind have united in society, and bound themselves by laws, in order that they may enjoy uninterrupted repose in the bosoms of their families, the laws ought, therefore, to protect and secure that peace, not trouble and destroy it, by wounding the honest pride of the man, whose character is attacked and condemned, until he has made public proof of his innocence: The learned council supported this bill by arguments drawn from the excise laws; and on the expediency of extending those laws to this species of property; he met the question fairly; and I thank him for so doing. This bill institutes a new mode of trial for a factitious offence, adverse to the rights and liberties of every British subject; it opens a door to every species of vexatious information, and holds out every sort of encouragement to the infamous trade of an informer, that a summary trial, a great reward on conviction, and a moral certainty of being held harmless, at all events can give—no previous information on oath, no peace officer required to be present; the whole penalty goes to the persons seizing; and under that temptation, the last and lowest of mankind, may at all times interrupt the execution of the farmer's business, by no other law than that of superior strength, drag him before any two justices, when  
instant

instant imprisonment will follow summary conviction. Are there no such men as trading justices? Are there no such men as stupid justices? Nay, where the proof of innocence which is put on the accused fails, as in many cases of innocence it must, the most upright justice has no alternative;—to prison the man must go, unless he produces bail, or pays a deposit into the hands of a justice, sufficient to cover the penalties.

We take for granted, bail to such an amount is always to be obtained at a moment's warning, or that every farmer can at all times make such a deposit as this bill requires, and that he would be willing to trust such a sum in such hands.

The most tyrannical powers are given to the justices, to extort evidence against the accused—other laws of revenue attack only persons dealing within the scope of them; this law operates on the whole community, without exception. The authority given to the justice over the persons of witnesses, is abhorrent to every principle of English law, and, I believe, unprecedented. The powers given to imprison sureties, are equally preposterous and absurd. Where is the necessity that calls for all this severity?

Why, truly, the manufacturers have offered proof to the House that 2,100 packs of wool, the three hundredth part of the annual produce, has been smuggled, on which, Mr. Anstie, their chair-



man, grounds an opinion, that 10,000 packs have been smuggled, and a little while afterwards gets up again, and says he has altered his estimate to 13,000, or nearly one-third more. The steadiness of that gentleman's opinion is fully justified by the grounds on which it is made up; the House is in possession of those grounds, and, I trust, will leave him in possession of his opinion; I am sure it would be a pity to take it from him.

But will any gentleman stand up and say, that on two such opinions as Mr. Anstie's and Captain Sharpe's, aided by such evidence as is contained in that report—the legislature of Great-Britain should extend the excise laws to so alarming a degree, and subject every farmer, his property, and every inhabitant of this kingdom, to such a decision, and such a jurisdiction—for in the shape of accused, surety, or witness, this law operates on the whole community.

Will Parliament, on the proof of a three hundredth part of the raw material being smuggled think fit to trample upon the dearest constitutional rights which as Englishmen we possess; and pass a law which resembles more the laws of the Inquisition, than it does even the severest law upon your statute-books.

And all these regulations are to be enforced without a single violation being proved against the wool-grower of those unjust and foolish restrictions  
of



of darker ages; unjust, because they are partial and foolish, (if their arguments are good) because they are ineffectual. The farmer is to be perpetually disturbed in the peaceful prosecution of his business, by the visits of excisemen and informers, against whose merciless machinations, if this bill passes, neither his innocence can defend, or his prudence protect him.—Then comes the manufacturer, the cause of all his sufferings, and adds mockery and insult, to injury and oppression; he reproaches the wool-grower with having grown his wool so coarse as to render it absolutely useless;—the wool-grower expresses his sorrow, represents it to be such as his sheep and land produce, and humbly intreats permission to send it abroad loaded with a duty, where, bad as it is, he will gain a higher price than any English manufacturer had ever the generosity to offer him, in the best of times, when the raw material was, according to his statement, of a much superior quality.—The manufacturers reply—No: The laws of monopoly are still in force, it is true I cannot use your wool, but nobody else shall.

Another manufacturer tells him he has carried his cultivation too far—that the quantity produced is too large. The wool-grower replies—It is true it has pleased God to bless me with increase, and if that increase is beyond what you can afford to buy at such a price as will enable me to live, do, pray, (rather than force us to leave our lands uncultivated)

permit a limited exportation to take place, under a qualifying duty, by which we shall sell our surplus at a much higher price than we are now willing to sell you the whole for. The manufacturer's answer is, No, no—what the bountiful hand of heaven has given, the avaricious hand of monopoly shall render ineffectual—and impiously destroy those blessings, which are the natural rewards of spirited exertions and honest industry.

To prevent the smuggling of wool is not the object of this bill—smuggling is made the stalking-horse, but the true object is the depreciation of wool in the English market;—restricting the market lowers the price of wool, but lowering the English price is what tempts the smuggler, therefore this bill, in its very essence and principle, encourages the evil it pretends to redress.

Those who doubt this fact, have nothing to do but to read the bill brought forward last year, a bill which, as the evidence in its support was still weaker, might naturally have been expected to hold out a milder remedy, but its complexion differed so widely from this idea, that those who produced it were ashamed to protect it:—Let them read it, and they will there find, though difficulty upon difficulty, restriction upon restriction, penalties and vexations without end were heaped upon the wool-grower, a manufacturer, or even a pretended manufacturer's convenience was so much considered,

considered, that had the bill passed, the manufacturer would have become a licenced smuggler.

They well knew the contraband trade had never hurt them, or if it did, they knew, could they once obtain their bill, and by that means keep wool at the miserable price it bore in England, the temptation to smuggling, from the foreign price, would be too great for any regulation to counteract.

They wisely endeavoured, therefore, to secure to themselves the smuggling trade of wool, as well as the monopoly of the farmers produce, and as they had in the first instance robbed the farmer of his just reward, so, in the second, they would seize on the profit of the smugglers iniquity. The only possible way of preventing the smuggling of wool is to apply the same remedy to this species of smuggling, which experience has shewn to be the only efficacious one, viz. Lowering the smugglers profit: the mode of doing that I have already submitted to your consideration.—By some gentlemen it is contended the home market is too extensive to be called a monopoly. Compared with the market of Europe, it certainly is one, and its effect on the price of the thing sold, a most grievous and oppressive monopoly;—others are of opinion the workmen would follow the raw material;—this, I believe, would not be the case even if all the raw material went to other countries; but for that to happen

before our manufacturers are served, you take for granted they could not contend with foreign manufactures, though they buy the raw material at first hand, at a cheaper rate, and are aided by a bounty from Government; or that Government is unable to pay such a bounty, which would be saying the whole nation cannot support a burthen, which a part of the nation has sustained, though unjustly, so many years. I shall not insist upon the diminution of value the English wool and yarn sustains, from the importations from Ireland and other countries; though the corn laws would afford, from analogy, a very strong argument in my favour; God forbid I should wish, by restrictions and prohibitions, to take away those natural rights from a sister kingdom, for the free enjoyment of which I am contending in my own.—Let the manufacturers enjoy every resource they are fairly entitled to, and every encouragement the nation at large thinks fit to give, but let a reciprocal liberty be allowed the wool-grower, and as far as is consistent with the good of the whole, let freedom be enjoyed by all. Does the manufacturer ever look to the public good? Does the manufacturer of the West look with a more favourable eye on his brother in the North than his fellow-subject in Ireland, or the alien in France. The contrary is a known fact. Is the woollen manufactory, anxious for the success of the cotton, the cotton for the silk; or do  
any



any of them care for the general commercial interests of the nation? For example; whether their goods are exported in English or Foreign bottoms, neither their friends or their enemies will suspect them of such views. What was the evidence declared on oath at the bar of the House of Lords on the Irish propositions—"In Trade there was "no friendship," that is, in rival manufactures, each must look after their own concerns; but in a question between a manufacturer and any other description of person, there they must be united, and, right or wrong, support each other.

The House would do well to consider before they established these two precedents, first, that all who complain of an evil, shall, without any proof of its existence, be entitled to the remedy they desire;—secondly, that—having set forth this imaginary case, as the sole object of their application—they shall be entitled to such regulations as will, by a side wind, ensure objects to them, which, in their ideas, are of ten thousand times more importance than the removal of the evil complained of.

The state of the manufacturers case at present, is precisely this: Though they have proved nothing, they have asserted a great deal, and having asked for every thing, they hope the House will give them something: If the House gives them any thing, from this day we may bid adieu to regularity



gularity and justice, for clamour has usurped the seat of sense and reason.

The Right Honourable Chancellor of the Exchequer has endeavoured to please both parties, by acting as a moderator; he has hitherto cautiously avoided committing himself much on this subject, but I hope to day we shall hear from him a plain and complete opinion, on the justice, propriety, and expediency of the measure itself, and the mode proposed for carrying it into execution. I hope he will remember the manufacturers first moved this question. On what grounds, their evidence and the declarations of their friends have shewn him.

How much longer the landed interest may think fit to resign their property and understanding, I cannot tell—How much longer the administration of a wise and opulent country, may think fit, in obedience to a groundless clamour, to continue one of the most singular and destructive monopolies, that ever disgraced an enlightened people, I do not pretend to say—But I trust all will agree with me, in thinking that a measure of such magnitude should be taken out of the hands of those, who, in no instance whatever, are deemed judges of a great national question: Who have presumed to offer such a farago of nonsense, under the fictitious title of evidence, in support of a weak and detestable measure, and call on Government to examine this question

question, to let the same liberal maxims and reasoning be applied, that took place on the Irish propositions and commercial treaty, and then bring forward such regulations, as comprehend the good of the community at large.

No harm can happen from the delay, even admitting the evil. The manufacturers are in no danger, for they have thriven in spite of smuggling for many years, therefore to urge the danger of a few months delay, would be ridiculous indeed.

I can very well understand, why the committee of manufacturers, who framed this bill, are desirous of its passing; they have been living a comfortable life for some years, and are of course anxious for the fruit of their labour.

" So comes the reckoning when the feast is o'er,  
" The dreadful reckoning, and men smile no more."

But the House Sir, has to consider only the measure itself.

Being convinced, that the principle and real end of this bill are unjust and impolitic, that the means are, if possible, worse, but that the avowed object, even if it passes, so far from being prevented, will be encouraged; and having adverted to the evidence which is brought forward, as the sole ground of its support, evidence, on which I will say, that no sensible man would be at the trouble of altering the most indifferent action of his life, I have little difficulty in seconding the motion  
which

which has just now been made, for putting off the third reading of this bill to this day three months\*.

*Mr. Powys* said he had the misfortune to entertain, what he understood to be considered as very unpopular opinions upon the subject of the bill; unpopular however as they might be, he could not abandon them. Having said this, he entered into a long discussion of the bill, and stated a variety of objections to the several clauses. After dwelling upon these objections for some time, and appealing to *Mr. Pitt* (who he said had taken upon himself the office of arbiter between two contending parties) to solve certain difficulties, that, weighed upon his mind. *Mr. Powys* sat down.

Ayes (for the original motion)	72
Noes - - - - -	24

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## ON GYPSUM AS A MANURE.

*By Sir Richard Sutton, Bart.*

(WITH A PLATE.)

SIR,

AS I observe that you wish to hear from me according to promise, on the subject of my experiment on a natural manure, which you rightly

\* No answer whatever was offered to this elaborate and able discussion of the subject. A. Y.

guess

guess to be the Gypsum or Plaster, I must acquaint you, that not being able to overlook it myself, my bailiff tried it last year so very inaccurately with regard to the quantity of plaster and measure of the land, as well as its quality, that I could not fairly lay the result before the public. In one respect he did not do it justice, for with a view of laying it where most wanted, in each field where he used it; he laid it on the worst spots, the dry tops of gravelly hills, &c. The appearance in general, I think, was rather against the benefit of the plaster, though not decidedly so. I find it is at present a matter of a good deal of contest in Germany, though those writers on husbandry whom I am inclined to have the best opinion of, recommend it strenuously. I am now making my bailiff try the experiment again, with accuracy, measuring and staking out the land in narrow strips, alternately from one end of the field to the other, to afford a fair comparison with the intermediate strip not covered, and measuring off the plaster dust, by the bushel, as it is carried out, and shall certainly acquaint you with the result.

I am, S I R,

Your obedient humble Servant,

R. SUTTON.

Hanover-Square,  
Feb. 9, 1788.

ON

ON SOME CIRCUMSTANCES RESPECT-  
ING GERMAN HUSBANDRY.

*By Sir Richard Sutton, Bart.*

SIR,

**I** Yesterday received your letter; to say something to each of the points you mention in the order they stand:—The first strong recommendation I met with of the plaister, was in a work of Mr. Mayer, a clergyman in Franconia, who has signalized himself by many writings in agriculture, for which he has obtained several premiums, as well as an extensive practice. He recommends it pulverized as a top dressing for corn, immediately after sowing, but particularly for clover and grass seeds, in the proportion, near as I can make it out, of about 12 or 14 bushels to an English acre. He considers it as acting principally by attraction of the nitre from the air. Mr. Schubart, a Saxon gentleman, who has taken great pains, both by writings and practice, to improve the agriculture of his country, recommends it in a less proportion, viz. For corn, as much of plaister finely pulverized, as is sown of seed. For clover, 3 cwt.—I find an English bushel to weigh 68lb. Several periodical writers have cried it down, some as binding the surface



face of the ground, and exhausting it; some, in a far-fetched suggestion, that by its attraction it raised exhalations and mists, that blighted corn and vines. Pfiffer, a Professor of *Œconomichs*, and the Science of Finance, at Mentz, who appears to me one of the most judicious writers in Agriculture, and well versed in chymistry, seems to take a middle way: he considers it as absorbent, attracting the acid of the air, and the alkaline oily particles arising from dung before in the soil or otherwise, and bringing them into action to serve as neutral salts, consequently looks upon it as a quickening forcing manure, fit to be used between proper intervals of dunging, but not as a restorative, or tending to increase the vegetable mould; and therefore exhausting, if repeated without such intervention of dung. It has been tried in Germany calcined, but all the friends of it agree that it is better raw.

As to Fallows, Mayer obtained a prize from the Society of Carinthia, for a Treatise, proposing the total abolition of fallows, and the right of common exercised over them, and the common pastures. He proposes sowing clover with the barley or spring wheat for one crop, and breaking up for wheat and rye,—sowing lucerne and sainfoin to remain,—the growth of cabbages, rape, turnips, &c.—and stall feeding all cattle. Schubart particularly insists on the necessity of abolishing the usual course of two  
crops

crops and a fallow, as in our common fields, and getting rid of the sheep-walks, which go over the fallow and meadows, and at certain times belong, in Saxony, almost every where, exclusively, to the lord of the manor.—He practises it by his account, and has certificates from respectable people annexed strongly recommending it, but it led him into a violent paper war, and some law-suits and vexations, and he could not succeed in getting public regulations made in favour of the plan, as has been done in other principalities, viz. Anhalt, Dessau, Coburg, &c. He recommends getting wheat after the clover sown with barley on one ploughing, as with us, and gives a plan prettily exemplified, on a sheet of six, seven, and eight years round of crops, which, I believe, you would think a good one, except in one instance.—(*See the annexed plate.*)

Bessckondorf, President of the Finances in Brandenburg, writes in favour of fallows, but it is only in contradiction to the practice lately introduced into his country, of cropping the three fields every year, two of them with winter corn, and one with spring corn (without clover) which he observes makes dwindling crops that produce no straw for dung, robs the sheep of their run on the fallows, &c.

As to wool, Mayer proposes supplying the loss of the fallows and pastures to the sheep, by feeding with green and dry clover,—keeping the  
sheep

sheep in sheep-houses.—Schubart contends strongly for never turning out the sheep to pasture, but feeding them in summer † with green, in winter with dry clover, keeping them not in houses, but in hurdles, of more or less extent, always open to the air. I should observe here, that from one end of Germany to the other, except in Holstein, where they are used for dairy cows, there is not such a thing as an inclosed pasture. In Saxony the great objection to the abolition of fallows and sheep-walks, was the prejudice to the sheep. It was contended they were necessary to their health and fineness of their wool. Schubart appeals to the testimony of a number of persons who had inspected his sheep for their health, and the improvement of their wool, on the food he gives them, and adds a certificate of a principal woollen manufacturer in Saxony. It appears that many Spanish sheep have been imported into that country, and they pretend that their wool does not degenerate. I have given you, pretty nearly the substance of what I have met with on these several heads.

I am, S I R,

Your obedient humble Servant,

R. SUTTON.

Hanover-Square,

Feb. 26, 1788.

K

*The*

† This is greatly deserving attention. A. Y.

*The very learned and able writer of this has applied his uncommon knowledge in languages to the examination of written agriculture. I earnestly request him to favour the public with further observations as he proceeds, in so exceedingly useful a course of reading.*

A. Y.

## QUERIES CONCERNING SILESIA.

*Answered by Baron Von Heithausen, Lord of Krausche, near Buntzlau.*

### I.

**I**N what part of Silesia and Lusatia, are the linen fabrics chiefly established?

*A.* In the mountains which separate Lusatia and Silesia from Bohemia; here the principal part of the linens are made, intended for exportation; but besides this there are linen weavers in every village, who make as much linen as serves for home consumption.

### II.

Are those fabrics carried on by slaves or by free peasants?

*A.* The denomination, *slaves*, is at present totally inapplicable to any rank of people in Silesia. The subjects possess in their own right, the houses they inhabit, and, the fields they cultivate: In the purchase •

chase of these tenements, a mutual agreement has been made between the subject and the lord, by which certain incumbrances remained upon every such tenement, which are the following: They are obliged for a certain stipulated pay, to till the ground, and do the other farming business of the lord, a certain number of days in the week, or year. Their lord has a right to take their children into his service, upon indentures of one, two, or three years, as labourers or dairy maids; for which he pays them certain wages. The subjects are obliged, whenever they mean to sell their tenement, or otherwise leave the estate, to pay the following fines: For every male adult 6 dollars (19s.) every female adult 3 dollars, (9s. 6d.) for a boy 3 dollars, a girl  $1\frac{1}{2}$  dollar, (4s. 9d.) besides the tenth of their whole property. They are moreover obliged to pay ground rent to the landlord, according to the value of their tenement. (This compact was confirmed by Frederic II. (the late king) in the year 1742. In consideration of these services, the lord is bound to protect his subjects, according to the utmost of his power.

### III.

Is the flax raised in the country?

*A.* The cultivation of flax is a principal object in all Silesia, not only of the lords of manors, but of all the subjects.

### IV.



## IV.

*Is it raised by flax farmers, or does each peasant raise his own?*

*A.* There are no farmers who cultivate *nothing* but flax. Sometimes a quantity of land is farmed for one summer, for the purpose of raising flax upon it, or the flax of an estate as bought when just sown, but this does not frequently happen. Every *farmer*, whether lord or subject, endeavours to cultivate as much flax as he can, in proportion to the other necessary articles of agriculture. The flax, after being cut down, is macerated, either in the fields, or in ponds, hackled, scraped, beaten, and sometimes boiled, according to the sort of thread it is intended for. All this is done by the farmer, who then sells it either to the dealer, or to the common people who spin it. The flax is spun by all the common people in Silesia, from the child of 7 years, to the old man at 80. Spinning is the occupation of both sexes, who as soon as they have finished any other necessary business, immediately lay hold of their distaff. The thread is brought up by persons who travel round the country for this purpose, and who sell it again to the merchants, and by the profits arising from this trade, they get a very comfortable livelihood. The merchant sends the thread to the bleach grounds

grounds, which are situated chiefly in the mountains and on the banks of the river Queis, which divides Lusatia from Silesia. The thread thus prepared is then distributed among the weavers, and made into linen.

V.

How much money, per diem, does a weaver earn?

*A.* The weavers are paid by the yard: At an average they may earn about 1 dollar 3 groschens per week, which is sufficient to support him, added to what his wife and children earn by spinning.

VI.

How much a yard, or piece, and of what measure are their linens?

*A.* The linens differ according to their fineness and value, in their length and breadth. The most usual lengths are, a schock, containing 60 ells, or 120 feet, (about 110 feet English.) A weebe, 72 ells, or 144 feet Silesian measure. And a stück, (piece) 84 ells, or 168 feet long. The schock is the most usual measure, and is sold from 3 dollars to 45 dollars, from 3 feet wide, (about 2 feet 9 inches English) to 3 feet 9 inches, (about 3 feet 4½ inches English.

VII.

How much a day does a woman earn by spinning flax?

*A.* This

*A.* This is very difficult to determine. Perhaps 1 groschen 6 pfennig, or 2 groschen a week. In the mountainous parts of the country, the inhabitants of whole villages, to the number of 600 or 700, are employed in spinning of fine thread, and earn as much by spinning as a weaver by weaving.

## VIII.

What are the taxes paid to the king, or the elector, or to the lord, (if slaves) by the linen-weaver, on his house, person, manufacture, land, &c. employed in the manufacture?

*A.* As a weaver he pays nothing: but if he keeps from 4 to 12 journeymen, he pays to the king, annually, 5 groschen 6 pfennig. If his wife, children, or maid servants weave in their leisure hours, he pays nothing for them: but if he possesses above 14,400 square feet of land, he pays, annually, 2 groschen to the king. In some very few places the weaver (as weaver) pays a trifle to the lord of the manor, perhaps  $1\frac{1}{2}$  groschen. Is the weaver at the same time a tenant for land? (as in No. 2.) His services are as stated in the second question.

*Answer to No. IX. concerning the Prices of Necessaries.*

4 lb. of bread cost 2 silber groschen— $2\frac{1}{2}$ d.

1 lb. of butter, 3 or 4 s. g.— $3\frac{1}{4}$ d. or 5d.

1 lb. of beef,  $1\frac{1}{4}$  s. g.— $1\frac{1}{2}$ d.

1 lb. of mutton, 2 s. g.— $2\frac{1}{2}$ d.

1 lb.

1 lb. of veal, 1 f. g.—1¼d.

1 lb. of pork, 1½ f. g.—2d.

A sheffel of wheat, weighing from 140 to 144lb. from 3 dollars 20 f. g. to 4 dol. 10 f. g.—from 11s. to 13s.

A sheffel of rye, weighing 136 to 140lb. costs from 2 dol. 4 f. g. to 2 dol. 10 f. g.—from 6s. 5d. to 7s.

A sheffel of oats, weighing 66 to 70lb. 1 dol. 2 f. g.—3s. 2½d.

A sheffel of barley, weighing 104 to 108lb. from 1 dol. 10 ½ f. g. to 1 dol. 20 f. g.—from 4s. 6d. to 5s.

A sheffel of pease, weighing 160 to 166lb. costs from 2 dol. 20 f. g. to 2 dol. 21 f. g.—from 8s. to 8s. ¼.

Beans are very little in use.

60 cabbages cost from 15 to 20 f. g.—or 1s. 6d. to 2s.

A calf, 5 weeks old, 9 f. g.—7s. 6d.

An ewe fatted, 6 f. g.—5s.

A four-year-old wether, fatted, 9 f. g.—7s. 6d.

A five-year-old bullock, of the country breed, 25 dol.—3l. 15s.

A ditto, of the Polish breed, 37 dol. 10 f. g. to 38 dol. 10 f. g.—5l. 12s. to 5l. 15s.

The Silesian silber groschen is a very base coin. The Saxon groschen is much better, and people are eager to get them, as they pass current every where,

where, being of better metal than the coinage of any neighbouring State. They pass in business in proportion to the Silesian silber groschen, or boehmen, as 5 to 4, but their real value is higher. 30 silber groschen, and 24 Saxon groschen, make a dollar. 10 silberg roschen make nearly a shilling, at an average of exchange. At present (1788) the exchange runs very high in favour of England.

## X.

What quantity of land under cabbages, will support a man, his wife, and four children, a year.

*A.* The weavers in the Silesian mountains have seldom land, but buy their food in the market.

## XI.

When was the linen manufactory most flourishing?

*A.* In the years 1763 and 1764.

## XII.

Is it at present on the increase or decline?

*A.* The weavers are at present all employed, and the linen has a good market, but the enhanced prices of the necessaries of life, render it more difficult for a weaver to get wealthy, than it was in 1763 and 1764.

The general answer to the rest of the questions which all arise in the idea, *that* the peasants of Silesia are slaves, is according to Baron Heithausen—

That the Silesian peasants are no SLAVES.



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A N N A L S  
O F  
A G R I C U L T U R E.

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PROCEEDINGS OF THE LORDS  
ON THE WOOL-BILL. 1788.

June 7.

**M**R. ERSKINE against the Bill, contended, That the plea set up by the manufacturers who had brought in this bill, of the *insufficiency* of the present laws, was the grossest and most preposterous error that had ever been brought forward. That it was very well known in the excise laws, how utterly impossible it was to stop illicit and contraband practices, where the temptation was great.

The object of the present bill could be nothing else than to stop and caulk those chinks in the laws, through which the mere mere drippings escaped,

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by means of smuggling:—That as it was impossible totally to effect such a purpose, the object of the bill was absurd; especially when it would be found to be attempted by a series of clauses of unheard-of severity; deserving nothing but contempt, if he could allow himself to express it, considering the place from whence the bill came. That he trusted, their lordships would not attempt to strangle men with ligaments of law that ought to be cut asunder. The pretence of the manufacturers was, That there was no wool in the world of equal goodness with the long English:—but one consideration alone was sufficient to shew the fallacy of such an idea. If we only had this good wool, why did it not rise in price?—why has it been constantly sinking from the time of Edward III. to 1782?

It appears by a passage in Rymer's *Fœdera*, that in 1340 wool was at a price equal now to 8*l.* a tod; whereas it is at present, but 1*l.* a tod. In the period that produced a former extension of the wool-laws, from 1730 to 1740, the pretence of the manufacturers was, that the growth was one million of packs: and they actually imposed the monstrous fallacy on Parliament, that 500,000 packs were exported.

Now they strain their imagination much more than they exercise their understanding; and of 600,000 packs, which they say is the growth at present, they contend that 13,000 are illicitly sent abroad:

abroad: that the contrary of this, however, would be proved in evidence at the bar, where it would be shewn that only 1,100 packs are so exported.

That Dr. Burn, in his Prefatory Observations on these Laws, had remarked that nothing was required of him, but to reduce them into order; for as to cases, there were none:—for not an adjudication of any consequence had been given upon them, so completely effective did they in that light appear. That such being the fact, he trusted their Lordships would not bind and fetter the unoffending honest farmer, whose situation in life was far removed from the vices of cities, and made him the more innocent, yet more open to the attacks of unprincipled informers, in the common conduct of his business.

Against the pretence of the manufacturers assertions, relating to the French mixing English wool with their own—he contended that such mixture could not exist, as it would come 45 per. cent. cheaper to the English manufacturer than the French, and yet no such practice took place here. That he should prove the French to have all sorts of wool.—Why then sanction an increase of severity in laws strong enough already?—why shackle the harmless countryman, yet never prove a fault in him?

The learned gentleman next proceeded to dissect the clauses, which he did with the greatest exact-

ness, and with uncommon ability:—to follow him through this principal part of his speech, would occupy more room than can be afforded to this sketch. He remarked that the clause, p. 9 and 10, declared, that wool carrying towards the sea, with intention to send it to some other port, should be so carrying without a certificate, the wool, carriages, horses, &c. are all forfeited to the informer who shall seize them. No information, no oath of just cause of suspicion, with a severity that looked more like Turkish tyranny than British legislation, the farmer, ignorant, perhaps, of the law, and in perfect innocence, might find his property confiscated to a villain.

Mr. Erskine supposed a case of a road pointing towards the sea, and then turning two ways; one to a port, and the other by a different route to the interior of the country: an informer meets the farmer's waggon before he comes to the turning—he is within five miles of the sea—and in going towards it, his property, waggon and horses are forfeited, though one quarter of an hour later, his intention would be manifest, not to go to the sea, by taking the turning that goes directly contrary. Was this severity to be endured?—was it possible their Lordship's should pass such gross absurdity and undigested tyranny into law? The saving proviso tacked to this clause was curious; it bore upon a case totally different, for it enacts, That it shall

shall not extend to moving wool from the place of shearing to the dwelling of the owner of the wool. Sensible that a provision was necessary to qualify such absurdity, a proviso is added, and it looks to a totally different case, and leaves the wretched farmer unprotected in the hands of a base informer.

That the clause, at p. 11, of the bill, which enacts, That if any wool, &c. is laid near a navigable river, to the intent to be exported, any person may seize the same for his own use, Mr. Erskine declared to be so totally iniquitous, and to be extended so universally to the whole kingdom, that he was confident their Lordships would never be brought to agree to it.

The clause at p. 34, against insurances, he ridiculed severely; as it shewed that the framers of the bill did not know that illegal insurances were void at common law.

The clause at p. 42, which enables an officer of the Revenue to arrest and detain any offender, and to convey him before a Justice, who is required, to commit him to gaol; from which offence, bail he contended, was, by a late determination in the King's-Bench relative to the Royalty-Theatre, excluded, he reprobated in the most animated manner:—and the power given, to send sureties, should they be found, together with the original offender,



to the common Gaol or House of Correction, in case of non-payment, he asserted to be beyond all parallel; and he defied the learned gentleman on the other side, to offer an instance on the Statute books that would justify it.

He declared it to be without all precedent, example, or idea, severe, arbitrary, tyrannical, and utterly contrary to every principle of the British constitution.

Mr. Erskine next insisted that the clause at p. 45, was one, which in the case of the Lottery-act, had at once dismissed a bill. That a noble Lord who once filled the highest station of the law, (Lord Camden) coming into the House while he was naming the clause, desired him to relate it—which he did.—He was then ordered from the bar, and before he had an opportunity to assert any objections to it, without being recalled, so forcibly did the clause operate on the minds of the House, that the bill was rejected at once. The same clause he was now to combat:—it gave a power to Justices to send for as witnesses, whatever persons in their judgment were necessary. They might send from Northumberland to Cornwall for any one of their Lordships, that resided there. No oath was required, declaring the necessity of such witness;—and if he does not obey the summons, or if he prevaricates, the Justice has power to commit to Gaol or the House of Correction, for three months.

Mr.

Mr. Erskine asked, if it was possible that their Lordships would permit the liberties of England, sacred till now, to be thus grossly insulted, not for any urgent claim of State necessity, but to satisfy the rapacious demands of manufacturing voracity. He would not dwell on the subject—he would rest in assurance that the thing was impossible.

Upon the winding clause, and the appointment of sworn winders, he expatiated at large; and proved, by undeniable arguments, that they were unnecessary, useless as regulations, and most mischievous as restrictions; and he concluded a most able and eloquent speech, by hoping that such a monstrous mass of absurdity and tyranny might not receive their Lordships concurrence.

*Minutes of the Evidence taken at the Bar.*

*Arthur Young, Esq.* sworn and examined. The questions in general and the replies, were the same as at the Bar of the House of Commons; those are omitted to avoid repetitions.—Those not before inserted were the following:

*Do you conceive, that if this bill were to pass into a law, that the price of wool would be lowered by it; and why? I conceive all sorts of restrictions made upon the free sale of any commodity must necessarily tend to lower the price.—Suppose a market that would consume all the raw material of the sort called long wool, grown in this country, exclusive of the market of Great-Britain, would not the price*

*of the raw material through British manufactures, rise to the same price as through the manufactures of all the world?* I think there is not the least occasion to recur to supposition or theory at all, because the present fact, throughout the kingdom, is a complete answer; which is, that the quantity exported clandestinely is extremely small, and yet the price is cent. per cent. lower than abroad.

But, to put it upon the question of theory, it appears to me it would be natural enough to consider, whether, supposing the long wool of England essential to make woollen camblets, and that the demands of the eastern parts of Europe would exhaust all the growth of long wool in this country, there would be any difference in the price of the raw material from its being manufactured abroad, or its being manufactured here?—I conceive that there would be an essential difference; that the manufacturer working up such long wool into camblets, would have what I presume to call a monopoly of the product of wool, and consequently that power of depressing the price which he has at present.—*But if there was a free exportation of English wool, would it bring the two markets nearly to a level?* Most certainly, I conceive it would: the price here would rise very much, and fall very little there; it would bring it to a medium.—*What new information have you received?* I produced an original letter before the House of Commons, which

which was printed in the minutes of examination taken at the Bar of that House ; since that I wrote for an explanation : there were some circumstances of doubt : It was supposed in the House of Commons, that the word *Angleterre* did not include the islands of Jersey, Guernsey, and the other dependencies of England ; from which a conclusion was drawn, that the calculations were not contradictory, because one implied the wool to come from England only, the other inclusively of those islands ; therefore it was necessary for me to inform myself, whether the term *Angleterre* included them.—*Does it ?* It most certainly includes the whole\*.

*Do*

\* The letters which the witness had in his hand were the following :

Paris, May 9.

Dear Sir,

I received yours, in which you request an explanation of some circumstances in relation to my former letter of wool imported into France. I have taken the proper steps to satisfy your enquiries, and wish the following may have that effect :

The imports of wool on the Custom-house books of France, certainly include, as is well known here, all wool at those ports ; for the duty is so very small, if it can be called so, that there is not the least temptation to evade it. There is a duty, only in order to have all wool entered upon the Custom-house books :—and as to sinking the quantity as you allude to, in order to conceal a profitable import of what we cannot do without : rely upon it that such an idea is all romance. You think very magnificently of your wool in England, as if you were the only people possessed with that commodity.—We have no such opinion, but be as it may,

*Do you know, as the result of your enquiries, what is the average price of journeymen's wages in the woollen manufactures in France? In general it vibrates*

may, the Custom-house entries take their fair and common course even with that commodity, otherwise, it is manifest that the board of the *Balance du Commerce* should be quite at a loss to settle its accounts, and would be useless.

The Custom-house enters upon its books very exactly, the name of every place, either of Guernsey, Jersey, Alderney, or any other place in England, from which comes the wool which is imported; so that the least parcel of wool imported, is entered with the name of the place, either of England or Ireland, according to that it comes from.

In regard to round number, I did not think you wanted the fractions of thousands and hundreds:—The exaggeration of the imports of wool stated by the report, as you wrote to me, was so extraordinary, that I thought it was quite sufficient to shew to you what was in general, the import at those ports; but I now send them exact:

## S T. M A L O.

127,578	————	1783	————	27,858 lb.
109,493	————	1784	————	32,147
125,608	————	1785	————	29,000
123,626	————	1786	————	27,499
	————	1787	————	27,310

## L E L E G U E.

1783	————	781 lb.	————	100,494
1784	————	2,790	————	132,436
1785	————	885	————	87,627
1786	————	4,062	————	67,856
1787	————	néaut.		

G R A N.



# A G R I C U L T U R E. 149

brates between 20 and 40 sous: I can only guess the average to be 26 or 27 sous.—*Do you know the price of labour in the manufacture of camblets, and*

## G R A N V I L L E.

	_____	1783	néaut.
	_____	1784	6,000 lb.
	_____	1785	4,942
	_____	1786	2,247
201,859	_____	1787	2,237

## S T. V A L L E R Y.

	_____	néaut.
153,571.		

I am, very truly, dear Sir,  
Your most obedient,  
And devoted servant,  
N. L A Z O W S K I.

May 14, 1788.

Dear Sir,

BY my last letter I have sent to you, the imports of English wool by those French ports mentioned. I thought that you could wish, perhaps, to be informed about the whole amount of all English wool imported into France by all ports; Dunkirk, which is a free port, included, from all parts of British dominions—that is, Jersey, Guernsey, Alderney and Iceland included; in short, from all parts. You will see by it how much your woolmen are misinformed about that information.

Years	1782	_____	208,062 pounds of wool.
	1783	_____	256,328
	1784	_____	219,862
	1785	_____	253,005
	1786	_____	262,320
	1787	_____	104,591

You

*and where long wool is used? The same.—Can you say what the price of spinning wool is, upon an average? Upon an average of England, I conceive it to be about sixpence a day: for Norwich, threepence-halfpenny.—What is it in France? In France, a great deal cheaper, where I enquired.—How much? I speak from recollection, between 3d. and 4½ d. a day.—What is the difference between weaving the same sort of cloths in general in France, and in England? I have not of late years made any enquiries as to the price of weaving in England: in France, the wages I first stated, of from twenty to forty sous, was the weaver's wages.—Do you mean per yard English? I mean the earnings per day; they are not all paid by the day, but some work by the great: they earn so much for their day's labour.—What is the expence of weaving the same piece of manufacture; is it dearer in France or cheaper? It was the general idea of persons with*

You may be assured that not one pound of English wool is imported, which is not entered exactly upon our Custom-house-books, and that this account includes all those entries to a half pound. You know, very likely, with what exactness the *Balance du Commerce* here carries on its business, and therefore you will have no objection to state against the fairness of these entries.

I am, with a high regard,

Dear Sir,

Your most obedient,

And devoted servant,

N. LAZOWSKI.

whom

whom I conversed, that taking a piece of weaving of a given quantity of cloth, the expence was cheaper in England than in France.—*You said, you was informed in France, that a great deal of foreign wool was had from other parts, and some from Holland; might not a great deal of that be English wool?* I do not know any positive proof that it is not; but it is utterly improbable †.—*Was not a quantity of wool exported from Ireland?* Ireland is expressly included in the accounts of the inspector general. The quantity imported from Ireland, I should apprehend, was very little, from its high price; for in the year 1787 it was as high in Ireland as it was in France, that is, 34s. per tod.—*Did you make any comparison as to the relative price of the different sorts of cloths in France and England?* I did.—*What was the result of that enquiry?* As near as I could conclude, from the examination I made, the English manufactures of wool were the cheapest.—*To what amount?* Some to a considerable amount; but, in general, not to any very great amount.—*Were the English camblets cheaper than the French of the same fineness?* I trusted that to the opinion of the person I shewed them to; they were shewn together; and the English was pronounced to be the cheapest, price and quality

† The minutes, as printed by order of the Lords, make me say it is *exceedingly probable*; the reverse of my answer, and absolute nonsense into the bargain.

taken into the account.—*What is the difference of price between English and Flemish, or Dutch wool? I have been informed, that long wool in Amsterdam, in the year 1787, was from 50s. to 56s. a tod.*

Then *Sir Joseph Banks* was called in, and being sworn, was examined as follows:—*Have you had an opportunity of knowing the quantity of wool exported from England to France annually? I have a letter from a Monsieur Bertier, who is Intendant du Generalité de Paris, which is similar somewhat to a lord-lieutenant of a county in England, but with greater powers. I am told it has sometimes happened, that the Intendant du Generalité de Paris has been removed from that post to the office of Prime Minister in France.—State the purport of the letter that you have from that gentleman? The letter tells me, that, with the permission of the Minister of France, he will inform me what the quantity of wool brought from England has usually been.—By England, do you mean England alone, or does it mean Great-Britain, Ireland, Jersey, Guernsey, and the dependencies? He mentions the word Angleterre. What is the amount? He says, that before the year 1787, he cannot tell me with absolute certainty: but by the best information he is able to give, which he conceives to be very near the truth, in an ordinary year it does not amount to quite one thousand packs, and that in the year 1787, it amounted only to 480 packs.—Have you had any other*

*other account from any other person or office in France, which corroborates this account? I had an account from the Bureau General de la Balance du Commerce.—Does that corroborate it? The last number is precisely the same.—Do you know whether there are any long wools of the growth of France? There are very good long wools in the marshes upon the coast of the channel; I have some in my pocket.—Can you say that either in France, Flanders, or Holland, there is any long wool grown of the same form or texture, or brightness of colour as the long wool of England? As far as I am a judge there is in Flanders.*

*Mr. Macro sworn and examined. His evidence:—He is a wool-grower, at Barrow, in Suffolk—has above 700 sheep—stout ewes that yield more than 2lb. of wool each;—the neighbouring fleeces not more than 1½.—That the washing and winding clause would be very oppressive and burthen-some to the grower, because in a light soil, it is impossible to wash all the sand out of a fleece before shearing:—That the winding one will also be equally hurtful; because in all the fleeces he is acquainted with, there are a great many ragged fleeces, which are in fact only locks, and those we always have wound up with our fleeces; but should the clause respecting the winding pass into a law, those ragged broken fleeces torn off by the bushes, must be laid aside, and consequently sold for a less price.*



price. Those seemed to be called locks, are those ragged fleeces; it is impossible to wind them up by themselves: there are not four ounces in some of them.—That they always cut the locks off, which are called cleg locks.—That it is impossible to wind them up in single fleeces, they are so small, being not more than he can hold in his hand.—That they cut off locks with dung upon them.—That he does not know what are cots or cals.—That they cannot avoid winding tar and oker, the quantity is so little. He heard a farmer say, he marked an hundred sheep, and, with the marking, it did not amount to one half ounce\* a sheep, and that five months before shearing. That tar put on five months before shearing would not collect other matter; would lose of its own weight; would grow dry, and nothing else would stick to it.—That he knows of fleeces, upon a light or sandy part of Suffolk, sold at an inferior price, on account of the impossibility of washing out the sand. He heard his wool-factor say, that the wool of two neighbouring parishes, would be worth a shilling per tod more than if they could possibly get them clean; but that, upon such light sandy soil, he believed they could not; and for that reason he could give them no more than he did for his.—That all wool sold by the goodness, by sample, in Suffolk.—That they wash

\* The printed minutes made Mr. Macro say one halfpenny; an expression he did not use.

as well as they can—sufficiently washing and rivering is a necessary process before shearing: but some rub themselves in the dirt, and take as long time again in cleansing.—That it is no difficult matter to judge whether wool is well or ill washed.—The wool factors are very good judges; they look at it, and buy it accordingly.—That it is a hardship to make the penalty greater than ever it was—And that the law of Hen. VIII. is not put in force in Suffolk, nor any action commenced upon it, there being no need: the factor always views the wool before he buys it; and refuses the fleece, if he don't like it.—Then a fleece was produced and shewn to the witness, which he declared to be not so good as Suffolk wool, would deceitfully, so as an allowance should be made for it †. Another fleece being shewn him, he said he could hardly believe it came from a sheep's back, but from a mattrafs.—That the highest price of Suffolk wool last year, was 11. 11s. per tod.

*Mr. Graham* summed up the evidence, in a speech of great ability and considerable animation. As much of the ground had been gone over re-

† In the printed minutes, *Mr. Macro* is made to say that no allowance would be made, which was the reverse of what he declared. The advocate for the bill said he could prove these fleeces to have been really bought—but he did no such thing; nor could it be bought so. Indeed it was an insult to the House to bring the last of those fleeces to the bar.

peatedly, it is necessary only to remark, that he urged that as the origin of the application to Parliament, was the quantity exported, it was necessary to the manufacturers to prove that quantity decisively: but so far had they been from doing it, that by the utmost latitude given to indefinite intelligence, the most their proofs could be carried to was 2,500 packs. The proofs brought from the French Custom-houses, by the opponents of the bill, shewed the real quantity to be no more than 1,100, packs. That it had been preposterously supposed the French would send over false accounts, in order to deceive; but respecting Mr. Lazowski, that suggestion was of the most ridiculous nature:—he is no manufacturer interested in the fabric of English wool—nor a trader that could ever have smuggled it: on the contrary, a gentleman, in a perfectly respectable situation of life, who, to oblige his friend, took copies of some office accounts, which he declares to be correctly taken; to imagine that he would dupe his friend so grossly as to send forged accounts, is a supposition positively unfounded. As to the idea of the Revenue books themselves being in France purposely incorrect, I need not offer a word on the subject, because Mr. Anstie's unknown intelligencer states them as his authority, and on which the advocates for the bill rely:—if, therefore, in one case they are accepted as authority, they must necessarily be so in another.

In

In regard to the necessity of our wool to form fabrics which undersell those of this kingdom, Mr. Graham contended that the fact was absurd, incredible, and unfounded; as to labour, he asserted, and with great confidence, that it was cheaper in England than in France; nominal prices were not to be adverted to, but the quantity of work performed, for a given sum of money; in which light 1s. 6d. a day, might be cheaper than 1s.—That in the improved state of our fabrics, with the activity, ingenuity, and capital of this country, to see manufacturers come howling to the bar, and complaining of rivalry that had existence only in their own brains, was a monstrous and a ridiculous spectacle. If there are any evils in some fabrics of long wool, particularly in that of camblets, barragons, &c. it was clearly not to be imputed to smuggling, but to the universal wear at home of cottons and mixtures of silk, which every man knew, had, with linens, driven out the wear of stuffs. Such an evil was to be submitted to with patience, till new inventions of other fabrics should bring wool, or mixtures of wool again into fashion. But if such never became the mode, are the manufacturers to come whining, like spoiled children, and demand laws offensive to every principle of civil liberty, in order, by sinking the price of wool, to lift the loss and burthen from their own shoulders, and place it directly on the grower?—Was there

common sense, or common reason in this? He touched then on various other points, and very ably.

June 9.

*Mr. Partridge* heard in support of the bill. He went chiefly over the same ground as he had done at the bar of the House of Commons. Asserted that it was an axiom in politics to prevent the export of raw materials—That the high price in the time of Edward III. was much exaggerated, as Dr. Smith stated it only as 2 to 1.—That the wool was then very high, mutton was very low, a sheep being sold for 1s.—That if the quantity was only 1,100 packs smuggled, it would be sufficient to justify the bill; but that there were reasons for believing the amount far greater, since Sir Joseph Banks and Mr. Young procured their papers from people not immediately connected with the Custom-house, and consequently could not be correct authority. That the title of Sir Joseph Banks' paper was Wool from England, consequently exclusive of Ireland, and the islands on the coasts of France\*. That as to Irish wool, the export was as illegal as in England, and certainly the manufacturers of this kingdom had a right to the surplus wools of Ireland†, that

\* Just the contrary.

† This extraordinary declaration, which is correctly reported, is in the true spirit of the law of 1699, which put down the woollen fabrics of Ireland. Mr. Partridge, doubtless, had his instructions for this; the claims of monopoly have no end. The gentlemen of Ireland will think themselves much obliged to the English manu-  
- Kirk



Dunkirk being a free port was also excluded from the account, as he should shew. That he was instructed to inform the House that the great evil complained of was in the long wool, the declension being in the worsted goods. That it appears from Mr. Young's accounts, that the French sheep were so ill fed, and so dirtily kept in stables, that it was impossible they should give good long wool; on the contrary, our sheep were kept on clean, healthy, dry downs\*, and being well fed with artificial grasses, the wool was of an uniform even texture; that even the Irish wool is not near so good as the English: and that in France, English wool bore a price far beyond their own.---That he should call witnesses to prove that labour added 5, 6, 7, and even 8 times to the value of the raw material—That if the fabric suffered, the land owners would want months for consuming their produce; that as the price was cent. per cent. difference between this country and France, an export would glut the market, and the price would consequently fall. He then defended the clauses of the bill in reply to the objections of Mr. Erskine, on the same ground as he did before in the House of Commons, quoting the act of British fisheries in defence of the most obnoxious.

\* The worthy and ingenious advocate is a better pleader than a farmer, or he would not have connected *downs* and *long wool* together.

A. Y.

Evidence heard in favour of the bill.

*Mr. John Sharpe* was called in, and being sworn, was examined\*.

That he, in the year 1785, was informed by Monsieur Mouron, a merchant resident at Calais, that there were in that year very considerable quantities imported into that port.—That in the year 1785, there was a passage vessel belonging to Monsieur Mouron, named *Le Mercure*, detained at Dover for having a quantity of wool on board; who seemed astonished, that his vessel should be seized for having so small a quantity of wool on board, when, by the inspection of the Custom-house books of that port, there had been a very great quantity imported.—That Monsieur Mouron is a merchant of considerable eminence. *You speak of considerable quantities of wool having been imported in the year 1785; can you say, from the information of Monsieur Mouron, or from other means, that that wool was not Spanish wool? I am certain some part of it was English.—Are you not equally persuaded, that some part of it was Spanish wool? I never saw Spanish wool landed at the port of Calais; but I have seen quantities of English.—Whether part of that wool, of which Monsieur Mouron spoke to you in the year 1785, was not Spanish*

\* In all the following examinations, those parts only are retained which are new, and not before printed by order of the House of Commons.

*wool,*

*wool, which had been wrecked off, or near the coast? I should suppose not; as he referred to the vessel, which then belonged to him, having been seized at the port of Dover.—Did you hear nothing, while you was at Calais, of a vessel being wrecked, containing Spanish wool? I cannot say I did.—You heard nothing of that fact? I did not.—Can you say what quantity of wool, those vessels you speak of, contained? From one to three tons each.—How long was you at Boulogne? I have been there, at different times, since the Peace till the year 1785.—How many days at any one time? Sometimes two, three, or more.—Did you ever go down to the Strand to examine the contents of vessels? I have seen them unlading at the quays of Boulogne, wool, which I conceived to be English.—Then you never saw the wool in those vessels as they came in? I have seen it on board one in particular, coming in.—Then do you not know from your own knowledge, that those vessels, which you supposed to contain wool, did contain wool; I mean the vessels coming into port? Not the whole; because I have seen twenty or thirty coming in a day.*

The witness was directed to withdraw.

Then *Mr. Thomas Wilkinson* was called in, and being sworn was examined.—*Was you resident at Dunkirk in the years 1785, 1786, and 1787? I was two years, and part of the third.—Did you ever see any wool brought into the port of Dunkirk during those years? A very great quantity.—State from what*

*place that wool was brought? From Kent, Essex, and Norfolk.—Did you see wool brought into the port of Dunkirk at all times in the year, during your residence there? Not at all times; but the greatest part of the year; and I have had it often offered to me for sale.—State to what part of France, or any other place, that wool was usually carried? In general, it is sent up the country to Lisle.—Can you state whether any duty is paid upon the importation of wool into the port of Dunkirk? I have been informed, and, I believe very credibly, not the least consideration whatsoever.—Is there any register kept at that port to ascertain it, to your knowledge? I never heard there was.—Is any entry necessary for the purpose of bringing in wool with safety, into that port? No.—Can you state how much English wool may have been imported at Dunkirk in any week or month, to your knowledge, upon an average? I should very naturally suppose, one week with another, that there are not less than forty packs a week, all the year round; and I verily believe I speak under the quantity.—What price did they offer it at? I never but once asked the price: they asked me 8l. that was five years ago\*.—You mentioned there were particular times*

\* This evidence is of a very remarkable nature indeed. Wool at that time was 8l. a pack in England, and it was offered at Dunkirk for the same price after paying freight, shipping charges, and smugglers profit, which, from other parts of this evidence, appear to be 100 per cent.

*in the year when this importation took place more than others: What were those times in the year? Principally in the winter, as there is a great deal more hazard in the summer.—Then, you say, this custom takes place comparatively small in the summer time? I look upon it, that there are not less than forty packs, one week with another, the year round.—What is the greatest quantity you have seen, within these last three or four years, in any one week? I have been offered, in the course of a week, threescore of these packs, of 244lb. weight.—Whether you ever saw threescore packs in any one week? I have been offered sixty packs in a week, and according to their report, that quantity was on board, and at that time in the harbour.—Does it not happen frequently, that two months may pass without any importation? If there should be, there is also many times in a day, quantities imported that would average it, in my opinion\*.—In what line of business are you? I resided there for two years, and afterwards at Dunkirk; and I was in the mercantile line.—In what merchandize, in any particular*

\* Not to touch upon the evasive nature of this evidence, which presumes from loose and desultory observation to draw an average with arithmetical accuracy, it will be sufficient alone to remark, that in order to make the general average of 40 packs a week, 80 packs must necessarily be landed in the winter; and yet he never saw more than 60. It was in the feeling of every man that heard this witness, that his evidence did his employers more harm than good in the estimation of cool and considerate people.

*branch*



*branch?* In general; in no particular branch.—  
*When the wool goes from Dunkirk towards Lisle,*  
*whether there is not some Custom-house duty in Dun-*  
*kirk which it pays?* I am informed, that from the  
 Bureau there is nothing required, I am so informed;  
 it passes on; only they examine it to see it is wool\*.  
*From what counties did it come in England?* There  
 is a quantity comes out of Kent, Essex, and Suf-  
 folk, I am very sure.

The witness was directed to withdraw.

*Mr. James Bankart* was called in, sworn, and  
 examined: he deposed—That being at Boulogne  
 in May 1787, he saw at Mr. Adams's, a manu-  
 facturer in hosiery and worsted fabrics, combers  
 and weavers at work upon English combing wool,  
 which Mr. Adams said was Kentish wool, which he  
 found no difficulty in procuring till within about  
 four or five months before that time.—That he

\* You were very prettily informed then truly! I passed out of  
 Dunkirk as well as into it; and the severest scrutiny I experienced  
 in France took place at the gates *going out*—they searched my cloak-  
 bag—and I was searched again at a fort in the way to Graveline,  
 so jealous are they of the freedom of the port affecting the internal  
 consumption of the kingdom. It sounded very probable that the  
 French court should allow a free port, and not have a strict barrier  
 between that freedom and the necessary restrictions of revenue  
 which affect all the country around! This evidence was brought to  
 shew the incompleteness of the returns from the Bureau Generale,  
 produced by Sir Joseph Banks, &c. implying that that office could  
 have no returns from Dunkirk, but the contrary is fact, their re-  
 turns there are as regular as from any other port, and included in  
 those accounts.

A. Y.

had

had landed nine hundred packs in one week. The witness being asked if he knew the price of English wool at Boulogne, replied he could not say.

*Mr. Jacob Thomas Spiedel sworn: deposed—* That he was offered 15d. a pound for English long Kentish wool at Boulogne, in June 1787, which was then worth 8d. in England.—That by mixing English wool with their own, and from the lowness of wages in Picardy, the manufacturers at Abbeville are enabled to sell 10 per cent. cheaper than those in England.—*What is the price of labour, that enables them to work so much cheaper?* The labour of all sorts is vastly inferior in Picardy, and in the French Netherlands, to the labour of this country. *How much is the price of labour in Picardy?* I cannot precisely tell.—*How do you know it?* From informations and conversations I had with the different inhabitants.—*Do you know it only from information, that they make the manufactures of long wool cheaper?* I had the information from a manufacturer of stuffs at Abbeville; from a Mr. Homessel.—*Did he tell you what quantity of long wool he used, and in what proportion?* I think he laid a fourth part: I did not chuse to be too minute, because I then should have got no answer at all.—*You said the labourer is paid less; will a French labourer do as much in a day as an English labourer?* Much is done by the piece.—*Will not an English manufacturer do more in a day, than a French manufacturer*

*facturer at lower wages? I should suppose he would:—At what price were the camblets? There were camblets from 2s. 6d. and 3s. per yard, to 5s. 6d. they were different patterns.—Did you ask the price of the French camblets? I saw several patterns.—But did you ask what price they were? I did not make an examination into the difference of the value; I did not ask the question.*

*Cross examined.*

*Do you know any thing of the price of labour in the manufactures of Lisle? I do not; I never was there.—You do not precisely say that you know the price of labour in Picardy? I do not precisely know what they pay, but it is less than in England.—When you speak of 10 per cent. cheaper, do you mean that was the estimate of the difference of wages only? It was a general answer to a general question, that they could work their goods 10 per cent. cheaper than we do.—What is the price of labour of a camblet at Norwich? I do not precisely know.—Do you know the price of labour in any other manufacturing town in that species of commodity? The price of labour in the woollen manufactures is different: There are various branches, some at one price, some at another.—What is the price of labour in the manufacture of the light kind; camblets, for instance? I do not understand the manufacture.—In any other species worked in the long combing wool? I am not acquainted with the long combing wool.—What is the*

*the price of a weaver's wages? I am not a manufacturer; I cannot say.*

Then the witness was directed to withdraw.

Then *Mr. Charles Clapham* was called in, and being sworn, was examined, as follows:—*In what trade are you? A manufacturer of worsted camblots, and of other worsted goods, and an exporter of worsted goods to foreign countries; I live at Leeds.—Do you know the increase of the value of the manufactured goods of Yorkshire worsted from the raw material? I have made a calculation very nicely, and I can assert that the raw material is increased six times its original value, when the foreign merchant gets it; I include freight, insurance, and every thing.—Do you know whether the worsted manufactures in Yorkshire are upon the decline at this time? I believe they have been upon the decline for these last two years:—Do you confine yourself solely to the worsted manufacture? I do in that point; but I can speak also to the cloth.—Is the worsted manufacture, a manufacture in which long wool is principally used? It is.*

*Cross examined.*

*From what circumstances do you conclude, that the worsted manufacture is upon the decline at Leeds? I belong to a committee, composed of delegates of the principal manufacturing towns, under the Worsted Act, among whom it was generally agreed, that there were not so many goods made and sold*

in

in many of those markets now, as there had been three or four years back.—*State whether, in those articles which you deal, you are undersold in Foreign markets?* I cannot say, of my own knowledge.—*Do you know, by any information from abroad, whether the manufacturers of Leeds undersell, or are undersold by, those of France?* As I have already said, I cannot speak to my own knowledge.—*But from your information?* I have no such information from any of my friends.—*Had you from any quarter?* Yes.—*Then it is true, that the species of goods you deal in, do sell at a less price than the Foreign goods?* I do not say that; I say, that the English manufacture is superior to the French manufacture.—*Whether you have not been informed, that the English manufactures of any given species, sell cheaper than the same species of manufacture abroad?* I do not know how to answer that question, whether they are cheaper, or not, because there is an essential difference in the wear; but I understand, that the French are enabled to bring to market goods that are of equal appearance, and try to take the market with them; but they certainly will not answer the end so well.—*Then, allowing the English commodities to have a superior quality, will they not, upon the whole, come cheaper to the customer than the goods of France?* If you take the idea of the durability, they certainly will; but a merchant, or a general observer, cannot know that.

Then



Then *Mr. Jeremiab Ives* was called in, and being sworn, was examined:—deposes, That he is a resident in Norwich, and have been many years conversant with the woollen manufacture in that place.—That it is now in a declining state, and has been so for three years past.—That since the war, was the first of its decline, and the proportion about one-third.—That the decline is owing to the high duties abroad, and the smuggling of the wool.—That the principal Foreign market to which camblets are now sent, is Italy.—That he had received letters from correspondents in different parts of Italy, from all of them, saying, that the demand for our camblets was diminished, because they had them cheaper from France; which French camblets cannot be made without English wool.—That since the Commercial Treaty, he has dealt with France for other articles, but not for camblets.—That about four months ago, a merchant of Lyons, a correspondent, came to their warehouse; his partner shewed him some patterns; after shewing him the patterns of our different fabrics, he asked him, if he would not look at some camblet patterns; he said, No, he could buy them cheaper in France 10 per cent. and that he sent more to Italy than the manufacturers at Norwich, and made of our wool\*.—That no higher duties have

\* There is a manifest contradiction between the evidence of *Mr. Ives* and that of *Mr. Clapham*; the former states roundly that French

*manufactured cheaper in France than in England?*

That is matter of opinion, I only speak to the fact, that this man said he bought them cheaper, and that he would not have any of ours.—*Do you think any given piece of manufacture can be worked up in England cheaper than it can be worked in France?* I do not know. I do not know the price of labour in that country.—*You can form no opinion?* No.—That he thinks no country in the world can produce wool equal to the long wool of Lincolnshire.—That upon the peace coming, there was a very great demand.—That they use some Irish yarn in the manufacture of camblets, but little of late; the price of it has been so high, that very little has been imported.—That the cotton branch has interfered with the Norwich branch, but cannot say what impression it has made.—That the witness does not know what is the price of spinning at Norwich.

Then the witness was directed to withdraw.

Then *Mr. Anstie* was called in, and being sworn, was examined.—*Mr. Partridge* asked him a few questions to the purport of his former evidence given in another place, but upon *Mr. Graham's* offering to cross-examine him, he was stopped by the Lord Chancellor at the first question; and as his Lordship was on that day ill, *Mr. Graham* found it in vain to press upon the attention of the House; and though he had more than forty ques-

tions to put, Mr. Anstie was ordered to withdraw, after answering only four.

*Mr. Atkinson* was called in, and, being sworn, was examined.—He is a manufacturer, who purchases wool in the fleece.---That he has discovered in fleeces, bought, false winding; in what he calls locks and dirt; particularly in one fleece, which we weighed to ascertain the loss, and it was diminished one half, and was a loss of at least three shillings in that fleece.---*From whom did you buy that fleece produced at the bar yesterday?* I did not buy it.

The witness was directed to withdraw.

*Mr. John Dagge* was called in, and, being sworn, was examined.---He is in the service of Mr. Browning, a woolstapler.---The fleeces produced yesterday were bought by Mr. Browning.---*From whom did he purchase them?* I cannot say.

Then the witness was directed to withdraw.

Then the counsel were directed to withdraw.

*Mr. Graham* was heard in reply. He remarked the origin of the complaints which produced this bill, was in a supposed declension in the Wiltshire and Norwich fabrics; but that it did not strike him as at all proved, that, supposing such a declension, it justified the measure; the manufacture seemed, for various reasons, to have moved from the West and from the East to the North, where it was flourishing in great prosperity; but to come  
for

for general acts, to remedy these local shiftings of trade he contended was the most absurd of all ill-imagined schemes; that had he been permitted to have cross-examined Mr. Anstie, he had not the least doubt but he should have produced from his evidence proofs to what cause were owing the evils now complained of. That nothing whatever in the evidence had controverted the accounts given by Sir Joseph Banks and Mr. Young. That the most extended account now produced was from an Englishman in the mercantile line fixed at Dunkirk; a description of a man that would certainly make their lordships receive his evidence with great caution; and especially as it was absolutely contradictory in all its parts; he commented on all the evidence ably; and amongst many strong observations made one very decisive. He said that Mr. Ives stated the decline of the Norwich fabrics to be only of three years standing, and that it was owing to the export of wool. He desired to ask if that export did not exist as great as at present, before such period of three years? Their own evidence and admission confessed it did. Why then how can the decline be now owing to that cause which ran hand in hand with their prosperity? The French had the wool before, and made the camblets before, yet ours flourished, and were not underfold. The fact was owing to other causes, to the prevalence of other fabrics at home, and to

the prohibitions laid by the Emperor in the Austrian Netherlands and Germany.

Counsel having withdrawn, the question of reading a second time was debated.

*Lord Brownlow* opposed it; his Lordship declared that from all the evidence which had been heard, he was clearly of opinion the manufacturers had no pretence that justified their demanding at present any bill at all, much less so obnoxious and offensive a one as the present. That the manufacture was in general proved to be flourishing, and where some little declension seemed to have taken place, it was plainly deducible from other causes. He therefore thought himself justified in attributing the application to very different motives from the ostensible ones, and that the real intention of the measure was to sink the price of wool, and consequently materially to injure the wool-grower. His Lordship adverted to various of the clauses, and shewed them to be violent, arbitrary, and unconstitutional attacks on the liberty of the farmers, unjustified by any necessity, and unfounded on any reason.

*Lord Fitzwilliam* was for letting the bill go to a committee, where it might be amended and made more palatable. He was ready to allow that there were clauses which certainly must be altered; that in particular which gave a power to justices to send for witnesses, was of a colour certainly not to be  
passed



passed in its present form, and others modified. The clause, the noble Lord alluded to, certainly did not meet his approbation; nor did he think the manufacturers would wish to press any measure which might be in the least deemed unjust, or bearing hard on the wool-growers; but it was a national object, by every constitutional means, to prevent the exportation of that article, which had for a long period of time been truly termed the staple commodity of this country.

*Lord Hopetown* opposed the motion: he declared himself explicitly against the bill in toto. His observations were pointed, clear, and explicit; he spoke with a rational animation, as if feeling the injuries which the bill threatened to the landed interest, and yet deviating into no undue warmth against the authors of the evil, great as he apprehended it to be. He remarked that the cause of the manufacturer appeared to him to be alone attended to in this business, whereas surely there was another class of men deserving the most attentive protection that Parliament could give the industrious wool-grower. True, it was asserted that the manufacture was of great importance—and its professors men of such considerable property, that they had a sort of claim on the peculiar protection of the legislature: Comparisons might be odious; but he was of opinion that in this respect the wool-grower stood at least in as respectable a light—he

believed it would be found, if any one would take the trouble to make the necessary calculations, that the farmers of Great-Britain were in possession of a property of from 80 to 100 millions sterling—Were these a set of men to sacrifice to any interest whatever? Much less to an interest who came on the merit of complaint, and could prove but a very trivial, and a merely local decline in one only branch of their trade, and which decline was proved by the counsel at the bar to be owing to other and very different causes. His Lordship observed in relation to the mutual dependance and connexion of the landed and manufacturing interests, that such connexion depended absolutely on the liberal and just principles of that policy which ought, by its institutes, to make them the same; but did this bill of fine, restriction, penalty and prohibition—did this violent measure flow from any such liberality of principle? Could their Lordships give a sound reason why wool should, by any forcible system, be kept 100 per cent. lower in this country than in any other around it? On the contrary, was there not many facts and reasons founded in the.n, which proved that an export of the surplus of wool, when plentiful and cheap, with a proper security to the manufacturer of pre-emption, and the guard of a moderate duty, would, at the same time that it highly favoured the landed interest, tend not in the least to injure our fabrics?

Would

Would it not encourage the growth and increase the quantity; and how could that take place without being beneficial to the manufacture? His Lordship used various other powerful and well-urged arguments against the bill.

*Lord Kinnoul* said their Lordships would unquestionably take all possible care of the interests of both parties, which the present bill was more immediately to affect; the evidence given at their Lordships bar, warranted him in assenting to the bill; there was not a maxim better understood, or better founded in truth than that where the staple commodity of a commercial country, could be all worked up by the manufactures of that country it ought not to be exported;—another reason appeared to corroborate the last; that France derived great advantage from the exportation of our wool; the good sense therefore of passing a prohibitory bill, applicable to the present justly complained of exportation, he observed, that the landed and manufacturing interests were so clearly one and the same, that no persons could do so material an injury to the nation as to throw out even hints that they were different, much less if they took any steps that could create and inflame jealousies between them\*.

*Lord*

\* As the noble Lord is a strenuous friend to the bill, this observation was a very extraordinary one; for certainly if ever people acted diametrically contrary to these principles it was the patrons

*Lord Hawkesbury*, who with Lord Sidney and other ministers, had given Lord Kinnoul much applause for his speech, congratulated the House on the wisdom of it:—To minute the noble Lord's observations, would be only to register over again the observations which had been made on one side only of the question. He recognized and adopted the ideas that we in England were *peculiar* in the produce of our wool; and that it was *necessary* to the French fabrics—That the manufacturers could work up all the wool of the kingdom, which plainly appeared from there having been two years clip on hand in 1782, and at present a scarcity; therefore it was plain they had worked up even more than the annual growth—That while such was the case, to permit our wool to be exported legally or illicitly, would be to ruin the manufacture, and if that happened, what would become of the land?—That as to the clauses, they were not without precedent—but however might be amended, if found necessary, in the committee.

*Earl Batburst* then moved that the bill be committed—on which the House divided.

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Majority		18

of the bill, which drew so hostile a line between the two interests. It was a perfectly new position, that those who make an attack cause no jealousy; but those who defend themselves against the attack kindle it at once! A. Y.

The

The Lords that formed the minority on this occasion, were the Dukes of Ancaſter and Portland; the Earls of Exeter, Abergavenny, Hopetown; the Lords Monſon, Boſton, Lovaine, Brownlow.

June 14.

The order of the day being read for the Houſe to reſolve into a committee on the wool-bill. The Lord Chancellor left the woolfack, and the Houſe being in a committee, the clauſes were ſeverally read by the clerk, and amendments propoſed to many of them. On the queſtion to make the imprifonment three inſtead of ſix months, a diviſion took place:

For the motion	—	11
Againſt it	—	13

A deſultory converſation took place on other clauſes, in which the Lord Chancellor defended the ſevereſt, and aſſerted them to be reaſonable and proper.—He ſaid that ſending an original offender and his two ſureties to gaol, was a right mode of proceeding, and well adapted to the nature of the caſe. In a word, his Lordſhip did not ſeem diſpoſed to admit that the leaſt error had crept into the bill.

Upon the waſhing and winding clauſe Lord Hawke ſpoke with great force and animation.—He obſerved that though he was for the principle of the bill, yet he muſt declare it prepoſterous to  
introduce



introduce clauses totally foreign to that principle, and which tended to shackle the wool-grower in an unnecessary and cruel manner.—Manufactures might certainly be a gentle stream that flowed to the fructification of the whole landed interest; but they might prove also a desolating torrent, against which mounds must be erected:—When such clauses as these were brought forward, they wore an alarming appearance:—no case had been proved that shewed them necessary; it had, on the contrary, been shewn at the bar, that wool was sold by sample, and consequently the interference of law unnecessary.—That such restrictions as the clause in question contained, were vexatious and arbitrary—they were abhorrent from the just principles of freedom, and that when they were to be enforced by swearing, by fines, penalties, and even imprisonment, they struck at the common rights of mankind.—That if he was to enjoy his property under such a system of restriction, on the ordinary occupation incident to it, another clause might as well take that property from him. His Lordship divided the committee.

For the clause	—	17
Against it	—	12

June 17.

The order of the day for the third reading of the wool-bill:—*Lord Hawkesbury* moved an amendment

ment to the clause respecting the restriction upon moving wool.—He understood there were graziers who sent fat sheep, weekly, to London, that would be within the operation of the bill : he would, therefore, add a proviso ;—That in such case, one entry at the usual time of shearing, for the whole, should be sufficient.

*Lord Stanhope* moved an amendment in the clause, which laid a penalty of two shillings on washing and winding, contrary to the act, which, he said, was to be connected with the other clause which enabled justices to send for witnesses, and force their attendance. He observed that there was no provision to secure to such witnesses their expences—that it was to be considered as a civil business, in which a witness was not obliged to open his mouth, if he was not first assured of having his expences paid. But that if it was to be taken as a criminal question, still the law of the land gave a witness a recompense for his expences :—to confirm this, his Lordship read a clause to that express purport, from an act of Parliament :—He moved an amendment of the washing and winding clause for giving such compensation ; and declared that without it, he would not agree to so arbitrary and unconstitutional a law.

*Lord Hawkesbury* opposed it, and said it was a penalty in a criminal point, and that justices could  
send

send for witnesses no further than their jurisdiction extended. — The House divided.

For the motion — 16

Against it — 24

*Lord Hopetown* then opposed the bill in general : He said that ideas had been thrown out, as if the persons who disapproved this bill, sought to raise jealousies between the landed and manufacturing interests, which appeared to him the most extraordinary position that could be laid down :—he had not the least intention of so doing ; but the persons who brought in such a bill had, indeed, much of this sort to answer for. The principle of the bill was unsupported, and as to the clauses, he could find nobody that approved them; they were forced by power through the House, with little said in their defence. The objects of the severity of the bill were the unoffending wool-growers—a set of men respectable, and in possession of too great a mass of wealth to be trampled on, merely because they did not associate and combine in the same manner, and upon the same principles, as those who were so ready to come forward, in combination to attack them. That the bill was, in every light, a most ill-judged and unpolitical one. The manufacturers complained of the high price of wool, and they bring forward this bill to cure the evil : the remedy of a high price is to lower it, and that is the real, as well as the avowed intent and

and principle of the bill. But do they consider that lowering the price, by means of such burthensome restrictions, will lessen the produce of wool, and consequently injure themselves? His Lordship handled this argument with considerable ability, and concluded with declaring his wishes that the whole might be rejected.

*Lord Hawkesbury* thought that the question now, as well as on former occasions, had been mistaken: the propriety of the wool-laws was not, at present, the enquiry; but simply whether the mode of execution now proposed, was not preferable to the old one. He desired to remind the House, that the penalties of this bill were much milder † than those of the old laws, and that, therefore, the epithets arbitrary and severe, were not applicable.

That in regard to any supposed contest between the landed and manufacturing interests, it was a subject that should not be started; but if in any great question that should arise, it of necessity became proper to give preference, he was ready to declare that the landed interest must and ought to have it; but such questions must be very fatal ones, and ought never to be agitated lightly.

† If the dead letter of the old statute that denounced the loss of the right hand was alluded to, the observation is just; but in all the convictions for smuggling, whoever heard of that law being executed? In all other respects, the severity of this law exceeds the old beyond all comparison.

That

That as to the present bill, he declared himself a friend to it, because he was a friend to the landed interest\*. He thought that the species of encouragement which this bill gave to the manufacture, was the greatest favour to the land: It was not a question of wool or of mutton only, but of all the other products of a farm; what would become of them if those markets were annihilated, which the great manufacturing towns afforded?—His Lordship further observed, that the wool-grower had surely no reason to complain, since it was notorious that the produce of grazing estates had sold, for the last fifty years, higher, on comparison with preceding periods, than the produce of any other estates whatever †.

*Lord Hopetown* said a few words in reply to *Lord Hawkesbury*; adding, that the combination of the manufacturers had been the only circumstance that had, upon this occasion, given effect to their operations.

*Lord Hawkesbury* assured the noble Lord that he had not alluded to any other combination of the manufacturers, but that of their wealth becoming a

\* It might, with great truth, on the other hand have been declared, that a man ought to be an *enemy* to the bill because he was a *friend* to the manufacture.

† His Lordship being one of the best informed men in the kingdom, one would not be too ready to doubt any assertion of his; but I think there are abundant reasons for believing that this fact is not stated with his usual intelligence and accuracy.

market



market to the farmer.—He was, however, sorry to say, that he had lately heard of combinations of another sort \*.——The House divided.

That this bill do pass — 24

Against it — 9

The Lords that divided against the bill were—

Ancafter

Portland

Exeter

Hopetown

Selkirk

Delaval

Coventry

Brownlow

Hawke.

And thus passed a bill the most preposterous, as a political measure, and the most unjust, and even tyrannical, as an internal regulation, that had, for many years, been in the contemplation of the legislature: Where at this moment were the landed interest of Great-Britain? Trampled on and insulted by a handful of tradesmen—A right, proper, and adequate treatment for men to receive, who, through ignorance, had been duped into an idea that the manufacturers were their friends; and

\* Alluding to a Landed Association then in contemplation.

and for want of concert and union found themselves at once equally oppressed and insulted.

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## A DAY AT MR. DUCKET'S.

*By the Editor.*

April 27, 1788. **M**R. MACRO, my excellent correspondent in this work, being at London, in union with other good friends of mankind, to oppose that conspiracy against the landed interest, and common sense, the Wool Bill; it gave me pleasure to take the opportunity of shewing him Mr. Ducket's finely conducted farm at Esher, in Surrey. The letters of Mr. Robinson of Windsor, (See vol. vii. p. 65 and 332) explanatory of that gentleman's husbandry, had satisfied the world as to various particulars of his method.—Some minutes I made in spending this day with Mr. Ducket, may be accepted as an appendix to those letters.

The course of crops is always a principal object in every system of husbandry: Mr. Ducket ties himself to no fixed rotation, but most of his fields I found, have been conducted in the following:

1. Turnips, after rye fed,
2. Barley,
3. Clover,
4. Wheat,

which is the Norfolk husbandry.

The

The turnips are put in upon one earth, and not fresh after ploughing, because the earth is then rather sour. He works it, however, with a tool, which he calls a *scuffler*, made like a Kentish nidge, with which two horses will do six acres, some days after ploughing; after which he harrows and drills the crop in. The whole turnip preparation is effected in two or three weeks. The barley is put in also on one earth, but it is left sometimes two months before sowing, according to the time of consuming the turnips, or by reason of waiting for rain, but in either case he does not plough again, but only works the surface. It is drilled in rows at nine inches, the clover being also drilled at the same time over it; hoeing follows; and Mr. Duckett thinks it more beneficial to barley than to any other crop. The wheat on the clover land is also put in on one earth a trench ploughing, and likewise drilled, as the barley, after harvest; the wheat stubble is ploughed, and sown with rye, which is fed off, and sometimes mown for soiling.

With some small variations from this routine, Mr. Duckett has gained six crops, with only four ploughings, viz.

1. Clover lay trench ploughed for wheat.
2. The wheat stubble horse-hoed for after-crop turnips.
3. One ploughing for pease, drilled at 11 inches.
4. Before the pease are cut, turnip-feed sown over them.

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5. One

5. One ploughing for barley, drilled at 9 inches.
6. The stubble of the barley trench-ploughed for pease again—and turnips may again be sown over them.

In the culture of pease here alluded to, he drills them, the rows never further asunder than 11 inches, and uses  $2\frac{1}{2}$  bushels of seed per acre; of the Marlborough sort. They are harvested the end of July; about ten days before cutting the turnip-seed is sown broad-cast over them; and rarely misses. He had last year turnips in this culture, two feet five inches round.

Beans, Mr. Duckett dibbles in rows at 18 inches, both horse and hand-hoes them, and puts in wheat after. In this culture he lays great stress on the use of the large shim, for cleaning the bean stubble; and he has done this so effectually as to drill one crop of wheat this year on a bean stubble, without any ploughing at all, except in one land for a comparison; and it is remarkable that the wheat on either side that land is better than upon it. He accounts for it, by observing that wheat upon *whole* land lies dry—the rain does not equally insinuate itself—and he appeals as to a well-known fact, that this crop, when prepared for, rarely succeeds so well as on one earth, which preserves the land close and whole. I leave it to fallowists to apply this fact.

Cabbages he cultivates also, but not commonly on a large scale: he has some this year planted after  
wheat

wheat was reaped, on the same ground, by no means contemptible.

Tares for soiling, &c. he drills at nine inches, and earths up the rows, which he observes to be very useful for this plant, as it keeps a free passage for the air under them, and prevents their rotting.

Spring wheat, it is well known, he cultivates on a large scale; he drills it two bushels per acre the middle of March.

Among other variations from the preceding rotation of crops, two are remarkable. If clover is not good enough to stand through the year, he does not plough it up in the common barbarian way, to make a bastard fallow; but trench-ploughs it after mowing for hay once, and puts in turnips on that one ploughing. A masterly practice, but to be effected only with his tools.

The other is an experiment he tried this year for the first time; it is that of drilling rows of wheat between those of turnips. He did it the end of November, but next season will try it at Michaelmas. We saw the wheat and the turnips left at one spot—It promises well. The rows 11 inches; and the turnips not fed on the ground, but carted off.

Mr. Duckett, it should be noted, is a friend to sowing every thing on a stale ploughing; when he trench-ploughs for wheat, he lets it lie sometime before drilling.

The great object of enquiry is by what means he has been for many years able to keep a farm of



more than 500 acres always cropped—never fallowed—and most of his products exceedingly superior to what are found in the best cultivated countries on similar land. I have viewed Mr. Duckett's farms for near 20 years, and can of my own knowledge testify thus much of his merit.

The first circumstance in this respect which demands notice, is his trenching (or skimming) plough, which is double shared; the one directly over the other for the purpose of trenching; that is, taking one narrow shallow furrow off the surface, and another beneath it to any moderate depth desired; I have seen it work ten inches deep; on the contrary, you may trench-plough with it only five or six. The use of this tool in his system of cultivation is incredible; to put one crop in, immediately upon the back of another, could not be done without it. I have seen him plough in rye that was six feet high, and directly get a crop of turnips; this plough does not leave an atom of the crop sticking out in the seams between the furrows: whatever is turned down, is really buried, and the surface consequently left free and clean for the ensuing seed\*. Dependent on this

\* He has also invented a double plough, for ploughing two furrows at a time; a tool of very great use and merit in countries where the custom is to have four horses and two men to conduct a common plough. Also a tool, which he calls a *miner*, for working deep beneath the furrow, to loosen the soil for carrots, without bringing up the dead understratum; and for attacking the roots of thistles deep in the ground.

plough

plough is Mr. Ducket's system of dunging; he conceives, and I apprehend very justly, that the more dunghills are stirred and turned over, and rotted, the more of their virtue is lost. It is not a question, of straw merely wetted, but good *long* dung, he esteems much more than that quantity of *short* dung, which time will convert the former to. Two loads of *long*, may become one of *short*; but the two are much more valuable than the one.— Without the trenching-plough, however, his opinion would be quite different. If long dung is ploughed in the common manner with lumps and bundles sticking and staring out at many places along every furrow, which lets the sun and air into the rest that seems covered, he thinks, so used, it is mostly lost, or given to the winds, in such a case short-rotted manure will be better covered, and should be preferred; but with his plough nothing of this happens; it would bury dry straw, or any thing else, as completely as it would ashes. And it enables him to use his dung in such a state as gives him a large quantity instead of a small one. The good sense of these observations, must be obvious at the first blush.

Drilling and horse-hoeing all his crops is the next point which has contributed so much to his success.

In this he has adopted a system, but with great improvements, which has been long known in East

Kent, that of striking furrows and sowing the seed broadcast; in Kent this was done with the shares of their double drill-plough, but Mr. D. invented a machine purposely for this work of five shares, a plate of which may be seen in my *Eastern Tour*.—

To use this furrowing machine, the land should be in good tillage order, that is, fine and friable; it is most easily managed on soils dry enough to be laid perfectly flat; but Mr. Duckett ridges a great deal of his land, with that gentle declivity which one ploughing effects; when thus ridged, the breadth must be proportioned to a certain number of rows. In order to have the rows absolutely strait and regular, (without which his system of horse-hoeing would be inapplicable) he makes, at every stroke of the furrowing machine, only two new trenches, though it has five shares, this is for the sake of accuracy, and when thus done, if any irregularities appear, he goes over such part of the land again. When the furrows are all opened to his mind, the seed is then sown broadcast, and a light pair of harrows, moving in the same direction as the furrows, level the surface, strike the seed into the furrows and cover it, with an accuracy which those only will believe who have seen it.

Drill ploughs, however, having of late become much the fashion, Mr. Duckett contrived one for the act of delivering the seed, instead of a man's hand; it is exceedingly simple, cheap, and effective;  
a fluted

a fluted cylinder in the fore part delivers the corn, and behind is a system of little trays for sifting out the clover-feed. We saw a great number of acres drilled in this way, and others sown in the former; in point of regularity we could perceive no difference; both are in equal perfection.

When this system is combined with the circumstance before noted, of putting in his crops on one ploughing, even with the great advantage of his trench-plough, it must occur to the intelligent reader that his soil must necessarily be sandy, which is the case; it is, however, very far from a running sand; much of it is moist, and had a good deal of adhesion; it is a friable, loamy sand, with tenacity enough to yield great wheat crops.

In the horse-hoeing system he is absolutely original, and has adapted the implements he uses to the work they are to perform, with a clearness of conception, and a practical sagacity of mind, which nothing short of decisive genius could have attained. I have before observed that he throws his land into ridges, each containing ten or twelve rows, and that the rows are usually nine inches asunder. The question was, how use a horse-hoe in a space of nine inches. For many years Mr. Duckett never would hear of a horse-hoe, and with great reason, till his drilling was adapted to it; his method was to draw his hoes by men walking backwards. But his present system is complete in all



its parts; the horse walks in the furrows of the ridges, he is attached to a long spring tree bar, to each end of which hangs a distinct hoe of five shares, placed nine inches asunder, to answer correctly the distance between the rows of the corn—these have handles, and are held by two men, a boy leading the horse. In this manner ten shares in as many spaces are worked at once. It must be obvious that this implement, which has every merit that a tool can have, would be utterly useless if the rows of the corn were not all positively strait and regular. The least variation would occasion parts of the crop to be cut up, and at the same time spaces of earth left uncut that ought to be hoed. Hence the mutual dependence of one implement upon the other.

Those who have been accustomed to see the work of drill-ploughs, know that this species of accuracy (indispensable for horse-hoeing) is to be expected in vain from them. One common error runs through them all, which is, opening the trenches and delivering the seed at the same moment; from which necessarily results the impossibility of correcting defects or errors. You see your plough going crooked, and yet you are forced to deposit the seed as well through blunders and angles, as in the straightest lines of the work. If you will have the two operations executed by the same tool, there is no help for this. As to being secure of working  
strait,



strait, I know of no such certainty without too great a loss of land by numerous furrows. The best chance would be for the horses that draw the drill to walk always in a furrow, and drill three rows on each side that furrow; but reckoning these at nine inches, the ridges must be made 45 inches broad, exclusive of the furrow, a space much too narrow, and a loss of land that would not be repaid in many soils by drilling. The whole breadth may be supposed near or about five feet, a ridge of all others the most unprofitable, unless on wet land arched up, and the rows placed on the crown, a system excluded by this mode\*.

It is, however, unnecessary to reason upon this point, till a farm drilled in a different system is to be seen, as correct as Mr. Ducket's: I must confess that I have not seen two acres done so exactly, as he has this year 200.

In Mr. Ducket's method he has the same choice of the quantity of seed as in any other: a good seedman sows, broadcast, one bushel of buckwheat upon an acre, as regularly as four of oats:

\* I lately saw in the Society's Repository, a plough that is executed (very badly) on a good idea, which I proposed, long ago, to Mr. Cook, and to various other mechanics; it is to drill the land at the time of ploughing; to drill one furrow before the next is turned; if in tilth, one plough may do the whole; if a lay, it must be a separate operation. I apprehend that on this idea positive correctness might be attained; and cheaper by far than in any other method.

But

But this gentleman is no friend to very thin sowing, he drills nearly as much in nine-inch rows, as many sow broadcast. I believe in this also he is perfectly right: On soils of extraordinary fertility, in which the powers of vegetation shoot forth a multiplicity of tillers, too little seed can scarcely be sown—but on all common land of moderate goodness, much saving in seed will be loss in the crop. To estimate the merit of drill ploughs by seed saving, will often be very fallacious. The experiments to shew this, are not a little complex, and demand variations, not yet to my knowledge tried.

Although Mr. Duckett has, for a great number of years, drilled on a considerable scale, yet he is candid enough to acknowledge that he is not at all satisfied a drilled crop would, on an average, exceed a broadcast one, if nothing further than a single crop was in question: he conceives the superiority of drilling, to refer chiefly to preparing the land for future crops.

I have sketched here, the outline only of his practice; to be minute would demand much more attention: The subject well deserves it; for I know no system better adapted to the soil, nor any executed with more intelligence and precision. But as the general advance of the art that is practicable among farmers, is the great object of my enquiries, I must, with a view merely to the public good, and to prevent disappointments from excellent systems being

being ill applied, caution my readers against an idea that this management is applicable to very different soils. Wet tenacious land must be thrown into artificial inequalities of surface, much greater than is seen on Mr. Ducket's farm. In such soils harsh and stubborn clods would throw his tools out of work; and if they are reduced to fineness, one heavy shower will turn the whole to mud, and a hot sun convert it to a crust of mortar. On such soils, or on very stony ones, no system of drilling can be applicable, with any degree of regularity.

Ewen, on Sands, and in Mr. Ducket's own farm I cannot approve of his system of drilling grass-seeds: Among the vast variety of noble crops, at both Peterham and Esher, which I have viewed with so much pleasure, the inferiority of his grasses has struck me often; I have never seen them nearly equal to the other plants on his farm. Indeed grasses can hardly be sown too thick, or cover the ground too closely; but if the corn is drilled, they must either be put quite to a hazard by sowing at an improper season, or drilled with it.

Cheapness and simplicity of implements, are no slight recommendations of Mr. Ducket's husbandry; his trenching-plough, furrowing-machines, drill, and horse-hoes, cannot altogether cost above 16 or 17l. this is not an object on which the merit of a system should be alone placed, but it is no slight consideration, when the extension of it becomes a question,

This

This was a very rich day to us ; Mr. Macro, who is a truly practical farmer on the largest scale, was exceedingly struck with Mr. Ducket's system—was clearly convinced that it might be adopted to great profit under various circumstances—and has since been at work on his own farm with that view\*.

A. Y.

\* While Mr. Ducket had his Peterham farm only, there were some very curious particulars in his husbandry, not found at present at Esber ; among others were,—1. His course of crops, which ran to three, four, and five crops of white corn in succession, all equally fine and clean. 2. Destroying couch or spear-grass by trench-ploughing ; one earth given deeply with his skim-plough, and after that a hoeing system on the surface, converted the couch to a manure. 3. Upon his driest sands, giving his tillage and hoeing in wet weather, and even in the rain, and not touching it in a hot burning season ; an admirable thought, of which he found the advantage, but not wanted on the moister sand of Esber.—And now I am on the subject of Peterham, I shall add an experiment he made there, which was one of the most ingenious I have known : It was the manœuvre of a great General. He determined to loam a poor barren sandy field—that determination has been taken by thousands, but in the mode of doing it he had nothing in common with others. He sowed it early with rye, which flourished well, and covered the land ; in the wettest seasons of the ensuing winter, he carted on 50 loads an acre of loam, ordering the men to vary the tracks as much as possible. A lady of quality, whose windows were within sight of the field, exclaimed at the idiotism of the farmer, to spoil entirely so fine a field of corn ; and to the eye, it was really in a state of utter ruin : what with the casting, trampling, poaching, and loam, it was left more like a fallow than a crop. But the event, converted insanity into genius. The field was 14 acres, and the straw alone sold for more than 60*l.* much of it being seven feet two inches high, the crop yielded above 50*l.* more. The farmer paid all his expences with a handsome profit from one crop. What say your claying calculations of loss to this Mr. Macro ?

COMPA-



COMPARISON OF WINTER WHEAT,  
SPRING WHEAT, AND BARLEY.

*By Thomas Ruggles, Esq.*

S I R,

**A**S it was my intention to give you an exact account of an experiment I had in contemplation to make, on the comparative profit of spring wheat with barley, both as fore-crop and after-crop; and also of red wheat, spring wheat, and barley, as after-crop; I deferred answering the request of your correspondent, in the 14th page of the 8th vol. of the Annals, to the time when my intended letter on the subject would resolve the uncertainty, in which he conceived I had left several circumstances, in my account of spring wheat, vol. vii. page 215.

A field, in my farm, called Stony-hills, containing 16 acres, being some of the lightest soil, and best turnip land in my possession, was fallowed with turnips in 1785, which were sold, to be fed on the land with sheep, at 45s. an acre;—the plant not a very good one. Six acres of this land was sown, as related in my letter before alluded to, with 18 bushels of spring wheat, (being near the whole produce of the two bushels which I had obtained the preceding year of Mr. Duckett, and which was sowed on an acre of good wheat land, after a crop of horse-beans, twice hoed); the other ten  
acres



acres of Stony-hills, was sowed with barley, at the same time: the whole field, on one ploughing only, after the turnips were eat off, the quantity of seed barley was 40 bushels.

Produce and sale of spring wheat, 1786.

Acres, 6.—Quantity, 18 quarters, 3 bushels; sold for 35l. 3s. 6d.—Per acre, 5l. 17s. 3d:—but allowing for the superior value of the seed, calculating wheat at 5s. a bushel, and barley at 3s. 3d. will occasion 2s. per acre to be deducted from the spring wheat, and leave the produce at 5l. 15s. 3d. an acre, expences of seed being equal.

Produce and sale of barley, 1786.

Acres, 10.—Quantity, 60 quarters, 5 bushels; sold for 72l. 4s. 6d.—Per acre, 7l. 4s. 5  $\frac{1}{4}$  d. Comparative produce of an acre of barley to an acre of wheat, is as 7l. 4s. 5  $\frac{1}{4}$  d. to 5l. 15s. 3d. or excess, in value of the barley, 1l. 9s. 2  $\frac{1}{4}$  d. The straw and chaff of the two grains, I estimate as nearly equal. I sell wheat straw at 12s. a load: the quantity and expence of threshing being considered, leaves the calculation rather in favour of barley straw and chaff.

In the Autumn 1786, ten bushels of red Kentish wheat were harrowed in after one ploughing, on five acres of the ten which was cropped the preceding year with barley; and on the 19th day of March, 1787, the other five acres of barley stubble were

were finished in the same manner, with ten bushels of the spring wheat.

The six acres of spring wheat stubble had the haulm cut in the Autumn, and carried into the farm yard, and was twice ploughed before winter. On the 24th day of March, 1787, twenty-four bushels of barley were sown and harrowed in on this winter fallow, after another ploughing.

Produce and sale of spring wheat, 1787.

Acres, 5.—Quantity, 7 quarters, 5 bushels; sold for 16l. 2s. 3d.—Per acre, 3l. 4s. 5½d.

Produce and sale of barley, 1787.

Acres, 6.—Quantity, 25 quarters, 3 bushels; sold for 26l. 8s.—Per acre, 4l. 8s.

Produce and sale of Kentish wheat, 1787.

Acres, 5.—Quantity, 11 quarters, 4 bushels; sold for 26l. 5s. per acre.

Eight shillings per acre being deducted for the two autumnal ploughings, four shillings being the price of the country, for each clean ploughing, will leave the net produce of the barley at 4l. per acre. Expences of cultivation, will be then nearly equal, straw, chaff, &c. being estimated as before; and, as there were only two bushels of each kind of wheat for seed, and four bushels of barley, the value of the seed will be almost the same; but there still remains some difference in the expence of harvesting, which I do not enter into, as my men take my harvest as it runs; twelve acres to a man, to cut, cart and stack.

The

The comparative produce, this year, of an acre of Kentish wheat, barley, and spring wheat, is, as 5l. 5s. to 4l. and 3l. 4s. 5 $\frac{1}{4}$ d.—or excess of the value of the Kentish wheat over barley, 1l. 5s.—of Kentish wheat to spring wheat, 2l. os. 6 $\frac{1}{4}$ d.—and of barley to spring wheat, 15s. 6 $\frac{1}{4}$ d.

The produce of the acre of spring wheat, in 1785, was twenty bushels nearly, and this on as good land as any in my farm. The produce of the Kentish wheat, in an adjoining field, and from whence this experimental acre was formerly taken, being very near 48 bushels an acre, after a summer tilth; and in a field adjoining to this last, after a very large crop of barley, on a summer tilth, the furrows struck up, and one ploughing, 26 bushels per acre.

By this detail, you have an accurate account of the proportional produce of spring wheat, compared with autumnal wheat and barley, with the same tillage, and on the same land: but, a question may be asked, to what useful purpose does this account tend?—What principles in the philosophy of vegetation does it conduce to establish?—or what axioms in agricultural science can be founded on this, or similar experiments? But few, I fear, if any \*, unless the experimenter will venture, in  
humble

\* Here my excellent correspondent is at his old work again, of depreciating farming experiments:—but I am very well pleased to find it in the detail of an important one. While he makes and registers

humble imitation of a Bacon, or a Priestly, to reason on a course of experiments, thus made under his own inspection, and attempt to blend theoretic hints with practical experience.

The first year, observation tended to sanction this assertion,—that spring wheat does not tiller \* on a rich, deep loam, which has been many years in tillage, and well manured; and which was, probably, originally, or before it was broken up, a deep surface of vegetable mould, on a stratum of clay. From the circumstance of the wheat not tillering, the plant was thin on the ground, and required the hoe; from whence I concluded, that two bushels of seed per acre was not sufficient: Another observation offered itself, that is,—that the sample produced on this soil was much better, both in colour and plumpness, than that I received from Surry, which was so indifferent in these respects, that my bailiff very much doubted whether the millers would purchase the sort. This fact establishes somewhat of another axiom,—that a strong soil meliorates the quality of the grain; a

registers such as will instruct the world, he certainly has a right, if he pleases, to hold them cheap. One word is sufficient—axioms, philosophy and science, are not to be deduced from a few experiments, but from many: but because many are not yet made, is that a reason for not beginning with a few? A. Y.

\* I doubt this is not a classic, but a provincial word, signifying to branch from the root.

third fact occurred to my observation,—that in point of produce, it fell infinitely below both the adjacent fields of wheat, one of which was after-crop; and, that it did not produce above half as much as I had good reason to believe any species of autumnal wheat would have done in the same field, and with the same tillage; from thence I infer, that a strong soil, although it meliorates the grain, is unfavourable to the quantity produced. I sent a bushel of it to the mill, and found it broke well, made good bread, but produced rather a greater proportion of bran than good autumnal wheat.

In 1786, several observations occur; in the first place, I increased the quantity of seed to three bushels an acre, the soil was lighter, more gravelly, the wheat came up very thick and regular, changed colour in frosty mornings, and above one-third of the plants produced, some two, a few, three ears; but those which did so, were very short both in straw and head; the whole, after the frosts were over, appeared healthy, until it began to blossom, when its colour changed to a dusky green, almost like half-made hay, to such a degree, that many neighbours thought it would not recover; the season, at that time, was dry, but the adjoining barley shewed no signs of want of rain: when the blossom was off, it ripened with very white straw, and was cut and carried before the common wheat of the country; its



its produce, weight, and price are already mentioned.

From these observations, I venture to deduce the following assertions:—that this species of wheat requires a light, mouldy soil; if moist, so much the better; it receives injury from frost, and, from a continuation of dry weather, sooner than barley; it ripens in as short a time as spring corn, and when wheat and barley bear their usual proportional prices, it is not so profitable a crop as barley.

Some more particulars should also be stated, with respect to the experiment of 1787:—the plant was thin, although well harrowed in, and the soil mouldy, very few plants tillered;—the same appearances attended it in frosty mornings, during dry weather, and when on blossom; and the contiguous wheat and barley in the same field, was not in the least affected:—it was much root-fallen, the red wheat was not—they were both reaped and carried at the same time, and the barley also was carried the following day:—it threshed much worse than the autumnal wheat:—the sample not so good in colour, or size of grain, as the year before.

On the whole, I believe that no tillage will enable a farmer to raise, on good soil, (by which I mean soil that will let for twelve shillings an acre to a pound), spring wheat at an equal advantage as a crop of autumnal wheat or barley, unless the price of wheat is greater in proportion

to the general price of the grain, than barley; and even then, the other sorts of wheat will return a larger produce; but there may arise an instance, in stiff clay soils, when a very rainy Autumn prevents the usual quantity of lands, in summer tilth, being sown; which lands may not be favourable to barley; then and there a crop of spring wheat may succeed to a comparative advantage, although I suspect, that lands which will not, after a summer tillage, return a good crop of barley, will not return, from the same cause, a better crop of this species of wheat.

With respect to the comparative value between after-crop barley on spring wheat stubble, and Kentish wheat on barley stubble, it is a practice that experience pointed out to the late attentive owner and cultivator of this farm, as being more profitable to sow wheat after barley, on a summer tilth, than barley after wheat: the reasons are obvious:—barley requires more tillage than can, in general, be given to lands in this neighbourhood, after harvest; wheat does not require so much tillage. Wheat after a summer tilth, is more subject to the mildew than if it follows another crop:—I speak this only of lands subject to my own observation, and do not mean it as a general assertion; besides wheat is double the time on the soil, and consequently, I should imagine, more likely to exhaust the vegetable nutriment, than corn sown in the spring.

This

This year I have tried two acres of spring wheat on after-crop land, the soil light good land for barley, pease and turnips : about forty-five bushels of pidgeons dung were harrowed in with two bushels of wheat per acre ; but no rain falling for near six weeks after the wheat was harrowed in, the pidgeons dung has not worked till within these three weeks, and I have now a prospect of a crop ; but instead of wheat of every soil which can do injury to land, and disgrace the occupier ; it is consequently not worth while to wait the result of a produce from pidgeons dung, on after-crop land. But you may, if you think proper, send what I have already experienced, in the culture of this grain, to the press, with this general conclusion,—that spring wheat is more likely to answer the wishes of the farmer in the South than in the North of Europe ; and that it makes a better figure in Columella, than in your Annals of Agriculture.

Yours, &c.

Clare, July 14, 1788.

T. R.

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## ON NIGHT-ROLLING TURNIPS, &c.

*By the Rev. Dr. Hinton, of Northwold,  
Norfolk.*

Dear SIR,

**M**R. VAGG premising very justly, that  
“ the leading step towards the cure of an  
“ evil, is a right knowledge of its cause”

P 3

adds,

adds, " from want of such knowledge, as to the  
 " failure of turnips, *the proper remedy has lain so*  
 " *long undiscovered.*"—" The destruction of these  
 " crops is generally attributed to the fly; and, in  
 " compliance with the popular opinion, (which I  
 " once entertained in common with others), I  
 " have, in my advertisement, held forth the same  
 " idea. But I have now an absolute certainty,  
 " grounded on experience, that the fly is not the  
 " only, nor indeed the principal occasion of the  
 " mischief. The turnip, in its infant state, has  
 " many enemies; the fly, the common earth-  
 " worm, *and the slug.*"—Again—" *But the greatest*  
 " *and most destructive enemy, is a reptile of the*  
 " *snail class, but without a shell, of a whitish*  
 " colour, and of the medium length of one inch,  
 " some being more, and some less; what it is  
 " called by the naturalists I know not, but in  
 " Somersetshire it is well known by the name of  
 " the *slug*, *and singly does more damage to young and*  
 " *tender plants, than all other species of insects.*"  
 Mr. Vagg, in another place, adds, " *Flax*, I have  
 " never sown, but have heard it often said to be  
 " injured by the fly: I rather suspect the mischief  
 " is done by the *slug*. Cabbage-seed, cauliflower,  
 " and other garden-seeds are very frequently at-  
 " tacked, and often destroyed both by the fly and  
 " the *slug.*"

To these extracts from Mr. Vagg's letter, I beg  
 leave, in support of my former assertion, to ad-  
 duce

duce the following passages taken from a work;  
 called, "Agriculture Improved, in 2 vols. by:  
 " William Ellis, a farmer, at Little Gaddesden,  
 " near Hemstead, Herts; printed for Thomas  
 " Osborne, in Gray's Inn. 1746:

This author, in his 17th chapter, vol. i, page  
 115, on the nature of the destructive slug, ex-  
 pressly asserts; "These are the *insects* which de-  
 " vour crops of pease, rape, *turnips*, and other ve-  
 " getables, while they are in their infant *field-*  
 " *growth*, and likewise damage wheat, barley, &c.  
 " —They infest *gardens*, and are destructive arch-  
 " enemies to most things that grow there."—Again  
 —(chap. ix. vol. ii. p. 59,) on sowing rape or cole-  
 " wort: But notwithstanding dung is so agreeable  
 " to the nourishment of a crop of coleworts, yet there  
 " is an inconvenience attending it, and such an one;  
 " as oftentimes proves fatal to whole fields; for  
 " dung is well known to be a great breeder of flies  
 " and worms, and an incentive to the *destructive*  
 " *slug, or naked snail*; and which are all enemies  
 " to a crop of rape; because while they are in  
 " their tender infant growth, *and when they have*  
 " *made their first two leaves*, the slug, especially  
 " if wet weather happens in the time, is very likely  
 " to attack and eat them up."—Further, (p. 60,)  
 " I myself have lost whole fields of coleworts in a  
 " very few days, that were eaten by the *slug, or*  
 " *little naked snail*, while they were in their first



“ infant state ;” and having intimated that he had recommended to a correspondent, a cheap ingredient to prevent such destruction—he asserts, “ Because it is impossible, that any slug, or fly, or other insect whatever, can hurt a young crop of rape, turnips, or flax, or any other crop in its infant and most dangerous state.”

Hence it is evident, that Mr. Vagg’s discovery of the *cause* of the destruction of a turnip crop, so far as it is occasioned by the ravage of the slug, is not new.

I am,

Your faithful Servant,

WILLIAM HINTON.

Northwold, Norfolk,

July 24, 1788.

Northwold, July 26, 1788.

Dear S I R,

IN my last letter, I clearly proved, by quotations from Mr. Ellis’s books—that there was nothing new in Mr. Vagg’s disclosure to the public,—“ That a reptile of the snail class, but without a shell, and well known by the name of a slug, is a most destructive enemy as well to crops of *turnips*, as to those of flax and other plants in an infant state.” —I shall next shew, that the process of night-rolling, with an heavy roller, for the purpose of destroying the noxious slug, has not remained *so long undiscovered*, as Mr. Vagg imagines.

Extract

Extract from Mr. Vagg's letter.

“ The roller must be eighteen or twenty inches  
 “ in diameter, *that it may have weight enough to*  
 “ answer the intended purpose.—But it may possi-  
 “ bly be asked—*as the sole dependance is on rolling*  
 “ *for destroying the slug*, why it may not all be  
 “ performed in the day-time? To this the answer  
 “ is easy.—The slug is impatient of the heat of  
 “ the sun, retires by day into the earth for shelter,  
 “ *and except in moist, close, and cloudy weather*, I  
 “ have at no time been able to see any one then, or  
 “ but very few, so that rolling in the day *cannot be*  
 “ *effectual* for that purpose, though in other respects  
 “ it will be most certainly beneficial.”

Extracts from Mr. Ellis, vol. 1, p. 117.

“ In the parish of Studham in Hertfordshire,  
 “ a yeoman having sown one of his inclosed fields  
 “ with hog pease, in the random way of sowing  
 “ them, *a wetish warm season succeeded*, which  
 “ gave the slugs the greatest encouragement to  
 “ come out of their cells, and feed upon the lus-  
 “ cious young tender green heads of the pease; and  
 “ they so fed on them, notwithstanding his draw-  
 “ ing his heavy large wooden roller, of eight feet  
 “ long, over them, that they devoured so many of  
 “ them, as obliged the person to plough up the  
 “ whole field;”—Again (p. 118,) how another far-  
 “ mer lost a crop of hog pease by the slug in 1744:  
 “ and (page 119,) how these two farmers might have  
 “ prevented their pea crops being damaged by the  
 “ the

“ the slugs. Here two faults attended these  
 “ crops of pease; one was that the farmers did not  
 “ keep their ground in sufficient heart; if they had,  
 “ the richness of the soil would have forced the  
 “ pease into such a quick growth, as to have caused  
 “ them to grow faster than the slugs could have  
 “ eat them.—The other was, *the farmers rolling*  
 “ *the pease in the day-time, which was wrong, be-*  
 “ cause the slugs were most of them retired into  
 “ their *subterranean cells*, and lay safe, out of the  
 “ squeezing of a roller; *therefore he should have*  
 “ *obliged his servant to roll the pea crop about one*  
 “ *or two o'clock in the morning*, when the slugs were  
 “ most busy in feeding on it, and then he might  
 “ expect to have had most, or all of them, squeezed  
 “ to death, by his eight-foot long heavy wooden  
 “ horse-roller, and have preserved his pease.—Thus  
 “ it clearly appears, that the simple process of de-  
 “ stroying slugs, while feeding on young and ten-  
 “ der plants, by *night-rolling*, with an heavy roller,  
 “ was publicly known upwards of 40 years ago—  
 “ It is, perhaps, needless to add, that Mr. Mills, in  
 “ his second edition of *Practical Treatise of Hus-*  
 “ *bandry*, London, 1762, mentions slugs as de-  
 “ structive to turnip crops, and recommends *run-*  
 “ *ning an heavy roller* over the whole field, (though  
 “ not in the night) *as an effectual way to preserve*  
 “ *turnips from insects.*”

I remain, your faithful Servant,

WILLIAM HINTON.

*Observations.*

UPON Mr. Vagg's first communicating his method to me, which he did personally at London, I told him, in the presence of several gentlemen, that the method had been published many years ago. I, however, did not allude to Ellis, but to the late very ingenious Mr. Reynolds, of Addisham in Kent, who communicated the discovery to the London Society in 1768. These are his words:

“ As the flies will be apt to fall upon, and destroy  
 “ the young plants, to prevent the inconvenience,  
 “ mix the seed with long-topped raddish seed, which  
 “ the flies much admire. The raddish leaves be-  
 “ ing quick growers, will entertain these insects  
 “ until the other plants get out of the way. But  
 “ if they are very numerous, run a light roller over  
 “ them, night and morning, whilst the dew re-  
 “ mains. This will lick most of them up, if duly  
 “ performed; for a little moisture causes both  
 “ them and the earth, when clammy, to stick to  
 “ the roller, by which means the enemy will be  
 “ removed, and the young plants no ways injured  
 “ thereby. A large field will require two or three  
 “ rollers to perform this effectually. I have had  
 “ three rollers going all night, from eight or nine  
 “ to five or six o'clock next morning; and this re-  
 “ peated for three nights successively; and once, for  
 “ four. This was done in the year 1739, a year,  
 “ fatal to turnips. By these methods I saved all  
 “ my

“ my growth, when there were scarce any field  
“ turnips besides, in Kent\*.”

From this passage it appears, that Reynolds was before Ellis. There is no proof, nor probably any reason to believe that these persons, or Mr. Vagg, borrowed the method of one another : They may all have discovered it—but the public are not so easily to be acquitted. When the method was to be had for nothing, nobody thought it worth attending to; for I never heard of any person pursuing it, except myself, which I did ten years ago, with some success, but not much.—But when a person values the *secret* at 2000*l.* it becomes very valuable, and numbers think it worth trying immediately. I know many practices in husbandry which would be eagerly pursued, if patents were taken out for the tools, some hundred pounds spent in advertisements, or great rewards demanded for the discovery—but they are to be had for nothing, and consequently are good for nothing. A. Y.

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## ROYAL SOCIETY OF AGRICULTURE AT PARIS.

**B**Y a regulation made by the King of France in his council, dated the 30th of May 1788, the French ministry has given a new form and stability

\* Dossie's *Memoirs of Agriculture*, vol. i. p. 436.



to the Paris Agriculture Society; by which it is now made the common center and connexion of all the societies in the kingdom. A director and vice-director are to be chosen annually, a general agent (L'Abbé Lefebvre procureur général de la Congrégation de France) and a perpetual secretary (Monsieur de Broussonet of the Academy of Sciences \*) are appointed by the arret.

The intention of instituting and encouraging such societies, is good; and highly commendable in government; but the power, influence, and revenues of such assemblies, are far beneath their objects. France has many societies but few improvements. What are societies—what are ministers—statesmen—controleurs generales, and intendants good for, while the taille is arbitrary, the farmer oppressed, and the kingdom uncultivated: While the nobility are to be found, not on their estates, but at Paris and Versailles; and while the manners, ideas, and feelings of the higher classes relative to their superiority over the peasants, may make their absence, a greater blessing than their presence? When I shall have finished the survey of the agriculture of that kingdom (which with God's blessing I will not neglect till effected) I have little doubt but I shall have reason to shew that

\* I had the pleasure of knowing this gentleman at Paris; and may observe, that no person can be animated with warmer wishes for the prosperity of French agriculture.

a blind ignorance has governed the management of their lands, except in the practice of the common peasants in some districts, from which in truth much more is to be learned, than from that immense mass of publications which the French press has given on the subject. A. Y.

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### NOTE CONCERNING (*CHICORIUM INTYBUS*) SUCCORY.

*By the Editor.*

**L**AST year I viewed with much pleasure, the farm of Monsieur Cretté de Palluel, near St. Denis; his culture of succory in particular I thought promising. He had sowed it by way of artificial grass with clover. I bought, at Paris, ten pounds of the seed, the quantity recommended for an acre, and sowed it amongst barley with my grass seeds—The lateness of sowing, owing to the drought last spring, and the barley not being yet cut, makes me uncertain what its fate will be. But, in April, I sowed a small spot (60 square feet) with it alone, in drills at a foot asunder. This flourished well, and was cut July 24; the weight, green, twenty-nine pounds, at which rate an acre would produce nine and a half tons. I ordered it to be given half to a cow and half to a horse, both  
which

which were foiling on lucerne. The man mistook, and gave it all to the horse, who presently eat it up clean. There will, I suppose, be a second growth, and as it is a perennial plant, will probably produce more the second year, and the third, &c. than the first.

One must not be too sanguine from small trials; but I am inclined to think, that it deserves the attention of cultivators. I shall this year procure more of the seed from Paris \*.

A. Y.

Bradfield-Hall,  
July 25, 1788.

## NOTE ON SPINNING.

*Communicated by Sir Joseph Banks, Bart. P. R. S.*

THE fleece of my Spanish hog (sheep) was spun by Miss Ives, at 25 grains to a hank of seven lees, or 280 to the pound avoirdupois of 7000 grains; each hank containing 560 yards, or 156,800 yards to the said pound.

	Yards.
Cotton in machines, has not yet been	} 92,400
spun to more than - - -	
— in jennies, to - - -	144,000
Indian cotton yarn, the finest I have	} 203,000
seen, is - - -	

\* This plant is indigenous in Suffolk, but makes, in its natural state, a very poor appearance.

## ON THE GLEANING QUESTION.

*By Capel Loft, Esq.*

Dear SIR,

I COULD have been happy, if the publication of Mr. *Ruggles' Letter, on Gleaning*, had taken place while the judgment of the *Court of Common-Pleas* was in suspense on the question: Since, if I hinted that an opinion might seem premature, given against the existence of the right, during the pendency of the cause, it may be objected to the present expression of my sentiments, that it incurs a fault opposite to *prematureness*, as coming after a decision.

But, intending to view the question in the state in which it was prior to that event, (since to that state alone my former letter, and both those of Mr. *Ruggles* apply), I do not enlarge on the consideration of that decision not being unanimous: nor of its being far from a novelty in our legal history, to find the opinion of a single judge, acquire at length, a decided preponderancy. I shall observe on this occasion, a respectful silence on the judgment lately given, circumstanced as it is. In a more proper place for the discussion, should I obtain a correct report of the arguments on the Bench, on the only case in which judgment against the gleaners has hitherto been given upon the general question, the reasons for and against

the claim, may, perhaps, be examined with the deference due to a judicial determination; but at the same time with the respect which it is impossible not to feel towards the character and conduct of the judge who differed; of whom, however, I deny myself the encomium; nor shall that desert be injured by a private panegyric, which on a former memorable occasion, from a delicate and high sense of the sacred purity of his office, nobly refused the testimony of popular approbation.

The first point in the estimate made by my opponent, is the effect of the *Mosaic law* upon this subject. Mr. *Ruggles* seems to think that the *Mosaic* institutions prove a claim so different from that of *gleaning*, as practised in this country, that they can not apply to *our* gleaners.—And he states a principle which I have no inclination to controvert;—that if you would prove a custom, you must prove it as laid. But the *Mosaic* precept neither was, nor could be introduced into this argument, as defining and specifying the subjects of the custom: these, of course, vary with the produce and husbandry of different nations.—Nor was any fanciful analogy between olives and apples, hops and vines, stated or insinuated by me:—the *Mosaic* precept was vouched, as indicating the remote and venerable source of an usage, at once grateful to the bounties of Providence, and congenial to the feelings of humanity. The establish-



ment of a right in the gleanings of the field, might thence naturally derive that antiquity, permanency, and almost universality, by which it seems to me to have been characterized: not because the nations who adopted it had been under servitude in *Egypt*, but because the experience of every community, as well as of every individual, was capable of suggesting an obvious and a powerful application of the *general principle*, connected with that particular instance; which is indeed no other, than that our necessary dependence as creatures, our common wants and enjoyments are a proper basis for a custom, alike expressive of these all-concerning truths, and consolatory of the evils incident to our precarious state.

Here, then, is a principle of sufficient strength to give rise to a legitimate custom. The spirit of *christianity* favours it, as it favours the diffusion of all social good, and cherishes a community of interest—a fraternal equality: the spirit of our *constitution* seconds it—as it loves to moderate the particular prerogatives of one class, by annexing other peculiar franchises to another. With such presumptions of equity, congruity, and probability, if we find an usage, general, continued, immemorial, we have evidence, perfect in every view, of a legal claim.

I offer not this law of benevolence, because found in the *Pentateuch*;—if I found it in the *Ko-*

*ran*

*van* or in the *Shafter*, the general principle has an inherent divinity;—the participation suggested has an universal aptitude: not as a rule of conduct *compulsory* to one people, because dictated to another; but as a germ of a political and moral good: so that whatever nation adopts the usage, (and it is much easier to exhibit its extent, than to find a civilized country where it is wholly excluded), adopts a most expressive symbol of amity, of freedom, and of rational piety.

By *rational piety*, I understand gratitude to the Supreme Goodness, manifested in an affectionate interest in the welfare of that part of the creation which is accessible to our good offices. In this view, if any custom ever was the genuine offspring of piety, undebased by dark and unkindly superstitions, this of *gleaning* may challenge an original sublimely fair. Freedom and cheerfulness, have, for ages, crowned this pleasing appendage to the yearly festival: divine benignity consecrated the smiling scene\*.—Nor do I think the prosperity or satisfaction of the farmer were impaired by the exercise of the privilege of taking these *scattered reliques* of the produce of his labour: when, with-

\* In a series of Letters, no less valuable than agreeable, (Correspondence of *Henry* and *Frances*, vol. 4), this delightful prospect of a group of unenvied gleaners, is painted with all the animated glow of virtuous complacency.

out looking into *Josephus*, he might feel the sentiment of the *Jewish* philosopher, that “*the land would be fertile of encrease, if without distrust, he left this portion of its produce for the sustenance of the indigent.*” Let this topic be concluded by remarking, that the custom is sublime in its origin, engaging in its principle, and so far from being peculiarly convenient to be observed in an early state of society, it can never be less burthensome to the owner, than in the most improved state of agriculture.—Whether on these recommendations, it be constitutionally sanctioned by the common law of *England*, is to be evidenced by the opinion of the learned in that law, by general apprehension, and by the extent and constancy of usage.

General apprehension, if vague and undetermined, will have little weight: but if it has prevailed to that degree, as to induce those who thought themselves interested in suppressing the claim, repeatedly to discontinue their actions, when they arrived to that point which would bring on a decision upon the merits, it then combines itself with the other sources of proof; as implying a consciousness of the prevalence and strength of the custom, and a deference to the opinion of able lawyers, who could not encourage their clients to hazard taking the judgment of the Court, on an  
action

action instituted against the gleaners. Now, the gleaners have repeatedly justified as such, under claim of a legal right; and have given the farmer an opportunity, so long declined, of praying the opinion of the Court: This at least appears to have been stated, and not denied on the argument.

And this at once accounts for the extreme scarcity of cases.—Indeed I cannot think it disadvantageous to this, or any custom, that it has been continued for ages without an adverse decision: and that when mentioned in books, that mention is clearly in its favour. Those books are all of high, and two of them of capital reputation. That the author of the *Trials per Pais* was not a Judge, is no deduction from the authenticity of the case, nor affects the accuracy of his information, his fidelity, or ability as a reporter. Mr. Serjeant *Hawkins* never was advanced to the Bench, and yet his Treatise on the Pleas of the Crown is in the first estimation:—And, for the terms in which *Hale* is, by the learned author of that much-esteemed book, the *Trials per Pais*, (p. 438), reported to have expressed his idea of the right;

Τοτε Θειον τήν γήν προθυμοτέραν εἰς τήν εκτροφήν τῶν καρπῶν απεργάσεται, μὴ τε καθ' αὐτὰς προνεμένων λυσιτελῆς, ἀλλὰ καὶ τῆς τῶν ἄλλων διατροφῆς λόγον ἔχόντων.

ANTIQ. IV. cap. 8. Ed. Hudf. vol. i. p. 165.

Q 3

language



language supplies none of greater strength and precision. Here, licence, even if it stood singly, is legal authority; it has no other *legal* meaning—not *mere allowance*, or *precarious*, permissive *indulgence*;—and when the words are—*the law gives licence to the poor to glean by the general custom of England*, let words be found, if it be possible, that shall place the express assertion of a legal right, upon a firmer or more ample foundation.

In *the Law of Evidence*, (p. 250), indeed, the expression is, *by the custom of England*, the poor are *allowed* to glean after harvest: but precisely the same expression is used in the remaining part of the sentence, in speaking of the *Mosaic* sanction, with regard to the *Jewish* poor:—now, “*allowed*,” in reference to them, clearly means an express right by law;—“*allowed*,” with regard to the *English* poor, evidently was used with the same import:—and indeed, the custom of England is the law of England †:—there is no higher evidence of the law.

Neither does there appear any dubious reserve in the language of *Blackstone*, Comm. III (p. 212.) He wrote his admirable Commentaries as a private lawyer: if referring to the doctrine of two great *judicia* characters, he introduces it by informing

† *Consuetudo anglie lex est anglie communis*—is one of our maxims: and indeed is the maxim of every country where law exists.



his reader, "*it has been said*"—the just inference is, that he rests the proposition on the weight of their opinions, which is stronger than if he had merely delivered it as his own: but, he marks sufficiently his concurrence, by terming it "*an humane provision* which seems borrowed from "*the Mosaic law*:" for a provision he could not term it borrowed, (or adopted by this nation from the law of that community), unless he were persuaded of its legal existence, not as an idea of eminent men, but as *received* into the *common law* of *England*. The correctness of his style seems to render this conclusion unquestionable: nor can a probable reason be assigned for his mentioning this claim in the manner in which he does, and following it by instances of less favourable privilege, (which yet sportsmen and lawyers will, for once, agree in recognizing as rights fully established), unless he regarded it of sufficient certainty, to hold a conspicuous station in a great elementary system of rational jurisprudence, equally comprehensive in the design, and exact in the execution.

Whoever adverts to the spirit of the system characterized by the appellation of *Poyning's laws*, and to the history, the opinions, and the prejudices of those times, will not, probably, be surprised at my arguing that the *claim of gleaning*, modified in *Ireland*, by the son and successor of *H. VII.* was apprehended to be in force in *Ireland*, as a part of our *English* common law.

Q 4

But

But this supposition is not necessary to the argument: thus much is clear—that there the usage existed, neither the right was denied, nor the custom abolished; but limitations were fixed by act of Parliament. It is uncontrovertible the usage has, immemorially, existed in *England*:—whether, therefore, *Ireland* adopted it from us, or practised it as an independent national custom, the argument is equally just, that against an usage, so ancient and so general, nothing less than legislative authority might have been expected to prevail.

That *the poor* have a national provision for their relief by statute, Mr. *Ruggles* will accept this reason for my considering as not an answer.—They had so, long before the time of *Gilbert* or of *Hale*:—but a right to parochial contribution, in case of necessity, supercedes not any right, which may tend to ward off that necessity, or to reduce the amount of the aid, to be levied for that purpose. The *poor rate* is a last resort for those who have not an adequate necessary subsistence, by property, by industry, or by any other legal title.—The laws under which it is to be raised, supply deficiencies; but were not intended to create any, by excluding the poor from any precedent, legal privilege.

I now, so far as the *ANNALS* are concerned, take my leave of this subject. It will appear from this explanation, that I look for the *law* of *England* in the *custom* of *England*, as one of its clearest  
and

and purest sources. To a legal custom, that it be *just* in its principle and *reasonable* in its extent, is indispensibly requisite.—A custom founded in benevolence, ascertained by immemorial usage, traceable to a moral precept of divine benevolence, and limited to the indigent, and those who are not of strength or habit to the more profitable labours of the field; nor claimed till the farmer has, in fair construction, carried his crop.—A custom recognized under all these features, by our most eminent legal writers, might, I still think, warrant me, or any man, in the supposition of its legality; nothing being found in the contrary scale, till the last determination:—nor will much apology be due for having formed a judgment, which, in this instance, cannot be pronounced erroneous, without imputing the same error to some of the first authorities in the last, and in the present century.

I remain, dear Sir,

Your obliged friend,

Troston-Hall,  
July 2, 1788.

C A P E L L O F F T.

## EXPORT OF WOOLLEN YARN FROM IRELAND\*.

		Stone of 18lb.	lb.
1778	————	122,755	15
1779	————	100,939	5

\* Communicated by Cornelius Bolton, Esq. M. P. Ireland,

1780

		Stone of 18lb.	lb.
1780	————	84,880	12
1781	————	81,857	14
1782	————	83,821	8
1783	————	66,677	0
1784	————	100,563	0
1785	————	94,729	0
1786	————	74,931	16
1787	————	54,862	3

*Prices of yarn in Ireland.*

1778	—	from 20s. to 24s. per 100 skains
1779	—	from 18s. to 21s. per ditto
1780	—	from 21s. to 22s. 9d. per ditto
1781	—	from 20s. to 21s. 6d. per ditto
1782	—	from 21s. to 21s. 6d. per ditto
1783	—	from 22s. 6d. to 28s. per ditto
1784	—	from 23s. 6d. to 25s. 6d. per ditto
1785	—	from 24s. to 25s. per ditto
1786	—	from 25s. to 27s. 6d. per ditto.
1787	—	from 28s. 6d. to 30s. per ditto.

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PRICES IN THE COUNTY OF CORK,  
IRELAND.—APRIL, 1788.

FLEECE wool, 1785, 12s.	} per stone of 16lb.
6d. to 13s. 6d. - -	
1786 — 15s. to 17s. - -	
1787 — 18s. to 20s. - -	

Beef

Beef, 1785 — 18s. to 20s.	}	per cwt.
1786 — 21s. to 24s.		
1787 — 19s. to 22s.		

Wheat, 24s. to 25s. per barrel, of 21 stone

Barley, 22s. to 26s. ditto, of 36 stone

Oats, 18s. to 21s.

Beef, 3d. to 5d. -	}	per lb.
Mutton, 4d. to 5d. -		
Veal by hand, 4d. -		

Pork for salting, 20s. to 22s. per cwt.

————in the market, 2¼d. to 2½d. per lb.

## AN ACCOUNT OF THE NET PRODUCT OF THE DUTIES OF EXCISE (ARTICLES OF £1000.) FROM THE 5th OF JANU- ARY 1787, TO THE 5th OF JANUARY 1788.

<b>B</b> EEER, cyder, perry, verjuice, vine-		£.	
gar, and mead - - - -	}		1,761,429
Foreign spirits - - - -			720,564
British spirits - - - -			476,393
Sweets - - - -			11,167
Malt perpetual - - - -			678,093
Hops - - - -			76,703
Licences to make candles - -			102
Candles - - - -			280,600
Soap, paper, starch, printed goods, and	}		566,469
wire - - - -			
			Spirit



Spirit licences, old	-	-	-	75,347
Ditto, new	-	-	-	34,678
Coaches arrears	-	-	-	2,003
Glas	-	-	-	110,928
Plate licences	-	-	-	6,593
Hides, skins, vellum, and parchment				212,994
Coffee arrears	-	-	-	2
Cocoa-nuts and coffee	-	-	-	17,004
Tea, 1785	-	-	-	424,144
Coffee, &c. licences	-	-	-	10,934
Bricks and tiles	-	-	-	94,521
Per cents	-	-	-	133,153
Auctions	-	-	-	48,629
Auctioneers licences	-	-	-	335
Male servants arrears	-	-	-	10,000
Coachmakers duty	-	-	-	2,063
Ditto licences	-	-	-	100
General licences	-	-	-	44,030
Wine	-	-	-	219,934
<hr/>				
Total, perpetual	-	-	-	6,018,923
Annual malt, mum, cyder, and perry				601,180
<hr/>				
Total, England	-	-	-	6,620,103
Total, Scotland	-	-	-	222,704
<hr/>				
Grand total	-	-	-	£. 6,842,807

PRICE

PRICE OF CORN IN CORN MARKET,  
NORMANDY.

<b>W</b> HEAT, the bushel of 40lb. weight	4	10
Barley - - - - -	2	5
Oats - - - - -	2	0
Rye - - - - -	2	10
Hay, 1000lb. - - - - -	24	0
Straw, ditto - - - - -	12	0
Cyder, 700 gallons - - - - -	250	0
Beef, mutton, veal, - - - - -	0	9
Butter - - - - -	0	3
Eggs, the dozen - - - - -	0	5

EXPERIMENT ON THE SMUT IN  
WHEAT.

*By the Editor.*

**D**ECEMBER 7th, 1787, sowed 14 beds with the same wheat seed, as black with the smut as I ever saw any.

- No. 1. Sown dry, nothing done to it.
2. Washed well in clean water.
3. Washed in lime-water.
4. Washed in a lye of wood-ashes.
5. Washed in an arsenic and salt mixture, as in last year's trial. (See Annals).
6. Steeped in lime-water 4 hours.
7. Ditto in the lye, 4 hours.
8. Ditto in the arsenic steep, 4 hours.
- 9 Ditto

9. Ditto in lime-water, 12 hours.
10. Ditto in the lye, 12 hours.
11. Ditto in the arsenic-steep, 12 hours.
12. Ditto in the lime-water, 24 hours.
13. Ditto in the lye, 24 hours.
14. Ditto in the arsenic, 24 hours.

*Result.*

No. 1.	Had	—————	377 smutty ears.
2.	Ditto	—————	325
3.	Ditto	—————	43
4.	Ditto	—————	31
5.	Ditto	—————	28
6.	Ditto	—————	12
7.	Ditto	—————	3
8.	Ditto	—————	1
9.	Ditto	—————	6
10.	Ditto	—————	0
11.	Ditto	—————	4
12.	Ditto	—————	0
13.	Ditto	—————	0
14.	Ditto	—————	5

I make no observations, as I propose repeating the experiment till certainty can be drawn from the results; these are different this year from what they were the last.

A. Y.

Bradfield-Hall,

July 27, 1788.

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ERRATUM in the last Number.

P. 130, l. 11, for Anhalt, Dessau, read Anhalt-Dessau.

# A G R I C U L T U R E. 233

## AVERAGE PRICES OF CORN FOR JUNE, 1788.

*By the standard Winchester Bushel of 8 Gallons.*

	<i>Wheat.</i>	<i>Barley.</i>	<i>Oats.</i>	<i>Beans.</i>
London,	5 7	2 8	2 0	3 1
C O U N T I E S I N L A N D.				
Middlesex,	5 10	2 9	2 4	3 1
Surrey,	6 0	2 11	2 3	3 0
Hertford,	5 9	3 0	2 2	3 7
Bedford,	5 6	2 4	2 0	3 1
Cambridge,	5 5	2 3	1 9	2 0
Huntingdon,	5 4	2 3	1 9	2 8
Northampton,	5 9	2 6	1 9	2 10
Rutland,	5 8	2 9	2 1	3 5
Leicester,	5 9	2 9	1 10	3 5
Nottingham,	5 10	2 0	2 0	3 1
Derby,	6 2	—	2 2	4 1
Stafford,	6 0	2 9	2 5	4 0
Shropshire,	5 10	2 10	2 0	4 6
Hereford,	5 8	3 2	1 11	3 6
Worcester,	6 0	3 2	2 4	3 4
Warwick,	5 8	—	1 11	3 2
Gloucester,	5 8	2 7	1 11	3 0
Wiltshire,	5 6	2 9	2 2	3 8
Berks,	5 10	2 10	2 3	3 3
Oxford,	5 8	3 0	2 4	3 3
Bucks,	5 8	2 0	2 1	3 1

### C O U N T I E S U P O N T H E C O A S T.

Essex,	5 6	2 6	2 1	3 0
Suffolk,	5 4	2 5	2 0	2 7
Norfolk,	5 7	2 0	2 0	—
Lincoln,	5 7	2 5	1 10	3 0
York,	5 9	2 8	1 11	3 4
Durham,	5 9	—	2 0	3 7
Northumberland,	5 5	2 7	1 10	3 9
Cumberland,	6 0	3 0	2 0	4 4

C O U N T I E S

## COUNTIES UPON THE COAST.

	<i>Wheat.</i>	<i>Barley.</i>	<i>Oats.</i>	<i>Beans.</i>
Westmoreland,	6 8	3 3	2 1	4 5
Lancaster,	6 6	3 6	2 3	3 8
Chelster,	6 4	3 2	2 4	—
Monmouth,	6 1	3 1	1 10	—
Somerfet,	5 9	2 8	1 11	3 3
Devon,	5 11	2 8	1 8	3 7
Cornwall,	6 0	2 10	1 7	—
Dorset,	5 7	2 6	2 0	3 6
Hampshire,	5 5	2 8	2 1	3 6
Suffex,	5 8	2 6	2 0	4 1
Kent,	5 6	2 9	2 1	2 9
Wales,	5 9	2 11	1 8	4 6
General average	5 6	2 9	2 0	3 4

LONDON PRICES OF CORN FOR  
JUNE, 1788.

<i>Grain.</i>	<i>Quarters.</i>	<i>Price.</i>	<i>Aver. per Quar.</i>
		<i>£. s. d.</i>	<i>£. s. d.</i>
Barley, —	24125 —	27140 2 6	— 1 2 3
Beans, —	8453 —	9841 1 2	— 1 4 0
Malt, —	12441 —	21231 4 1	— 1 14 1
Oats, —	46445 —	38291 14 8	— 0 16 6
Peas —	1124 —	1796 0 1	— 1 5 5
Rye, —	784 —	942 7 5	— 1 4 7
Wheat, —	11021 —	24638 19 2	— — —
	<u>104394</u>	<u>123881 9 1</u>	

COURSE OF EXCHANGE, FOR  
JUNE, 1788.

Amsterdam, -	38 1	Leghorn, 47½
Hamburg, -	35 1½-2½U	Genoa, 45½
Paris, - - -	28½	Lisbon, 64½
Cadiz, - - -	35½	Dublin, 9½
Madrid, - - -	35½	



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A N N A L S  
O F  
A G R I C U L T U R E.

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ON THE POLICE OF WOOL, AND  
THE NEGLECT OF THE FARMING  
INTEREST IN THIS KINGDOM.

*By the Editor.*

**I**N that hard-fought contest of the wool-bill, some circumstances occurred in relation to the situation of the farming interest of this kingdom, which demand the most serious and attentive consideration.

The second reading of that bill, in the House of Commons, was decided with only 159 members present, though every effort was exerted to get a good attendance.

The third reading was dispatched by 96 members; and no effort could preserve the attention of 47 members the first minority, for they dwindled, at the second division, to 24.

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The council began one day to plead to fewer than 40 members, and being counted, were dismissed for want of a House.

A few days before this business came on, a question relating to some Navy captain's was agitated, when very near 400 members attended.

From these facts it is sufficiently clear, that the subject of wool was not thought, by the greater part of the members, a matter of sufficient importance to call for their attention.

And no more than 47 members, in any one division, supported an opposition to a bill, the most offensive and injurious to the farming interest, of any that had, of late years, been agitated in Parliament.

But the subject itself, free from the interests of either of the parties, demanded the most rigorous examination, as no part of it but connects with various great national questions of land and commerce.

With regard to the farming interest, it was completely sacrificed to the manufacturing ;—and the bill passed the House, with clauses insulting to their feelings, oppressive to their interests, and vexatious to the ordinary course of their employment.

It may be worth while to enquire, for a moment, the extent, nature and importance, of this interest,  
which

which was treated, on such an occasion, with so marked a contempt.

By plain calculations, founded on facts very well ascertained, I could shew that the stock of husbandry, in Great-Britain, does not amount to less than one hundred millions, sterling; but at that sum, the farming interest are in possession of a mass of wealth, which, in a free country, one would think ought to command some degree of attention, much more it may be said, ought to secure it from neglect.—But this sum is actively employed in the most productive branch of all human industry; and yields an annual interest to the possessors of 15 per cent. or an income of 15,000,000*l.* a-year! When we see the interests of such a set of men totally neglected, and even sacrificed, whenever they come in competition with other orders in the community—something must be wrong, weak, or insufficient, in their situation or conduct.

An obvious remark strikes, on this occasion: It will be said, that the interest of their landlords and of themselves, is the same; and that when the expression, landed interest, is used, it always implies that of both landlord and tenant, and every other dependant on them.

But this circumstance, in which there is so much truth, is matter of aggravation to their state of insignificance, rather than of comfort.

Landlords, from their education, pursuits, and habits of life, have always been found to consider questions of commercial policy, as beneath the attention of men engaged in the refined, gay, or splendid scenes of life;—and have, accordingly, abandoned such questions to the attention of others, who, instigated by private interests, very different from those of the state, have been sedulous to convert such negligence to their own emolument.

In this train, it is obvious, that the *farming interest*, which landlords hold in *trust* for the good of others, as well as themselves, is as much overlooked and neglected, as if the owners were the cows, the sheep, or the hogs of their estates. And to such a situation have the owners of a property of an hundred millions, stupidly submitted.

But it is matter of a most deep and grievous mischief, that *such* should be the abandoned conduct of those to whom every call of justice, and every tie of connection, demand a directly contrary behaviour:—demand a solicitude of attention, and a steadiness of resolution, to protect the rights and properties of those, whose industry and capitals, are much more the source of their revenue than the land, which, without that industry, and those capitals, would be of no more value than the air which it supports. It is abhorrent to every rational feeling, and subversive of  
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of every political right, whose active energy can give national prosperity—that such a want of protection should be felt where the claim is so natural and compleat.

Much of it is owing to the ready excuse or salvo, which the gross falsehoods of the commercial system lend to those who seek only a pretence, for either voting away the interests of so great and respectable a set of men, at the nod of a Minister; or else, turning away from such trifles as wool, land, manufacture, and trade, for a dinner, an opera, a fête, or a ball.

*The landed and manufacturing interest are the same.* This is one of those monstrous and ridiculous fallacies, which is more worthy of Bedlam than a House of Commons:—But it is one most curiously adapted to the interests of the manufacturers, and for an hundred and thirty years, they have been cunning enough, or the landed men ideots enough, to beget an idea that the fact really is so.

To waste a moment in enquiring what would be the case, under a different system of legislative policy, that gave *equal* protection and encouragement to all the branches of national industry, would be absurd; we are to speak of things, not as they might be, but as they are.

If the education of our young men of fortune was different, such absurdities could not have gained.



ground; for, in an enlightened mind, they could be neither received, nor endured:—but the Universities are curious to teach whatever is perfectly useless in Parliament; and all that would tend to instruct the mind in the true principles of political knowledge, is avoided with so much care, that one would be ready to imagine no such principles had existence. To this cause it is owing, that no debate ever arises upon any question of agriculture, manufactures, commerce, colonies, distant dominions, navigation, &c.—but such a cruel ignorance, in the generality of the members, is at once obvious, that a man who has made such subjects, in the least, his study, is, at every moment, shocked and mortified.

In the debates on the late wool bill, I experienced this mortification more than is worth expressing: but, among abundance of *wise* maxims, none seemed so squared to the scantling of the bill—so much in unison with the notes to be touched—so ready cut and dried to the purpose, as this of the landed and manufacturing interests being the same. *This bill is to encourage the manufacture;—then I am for it, as a friend to the landed interest!—What would become of the land, if it was not for manufactures?* Recurring to a great principle of national policy, of much complexity, with as much ease and negligence, as if it was  
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some curious maxim, laid down by a Madame Le Brun, for the decoration of a head-dress.

Fully to examine such a proposition, and to refute the fallacy of it, would be to write a dissertation expressly on the subject, instead of which, I shall only touch on a point or two, to shew that such an assertion proving too much, proves, in reality, nothing.

The difference between the price of wool in England and abroad, was admitted by both parties, in the late contest, to be 100 per. cent—and that the growth in Britain, is 600,000 packs, at 10l. a pack, value, 6,000,000l. supposing, as it was then supposed, that a limited export of wool, would advance it here only 50 per cent. the loss which the landed interest has sustained, and is now sustaining, is 3,000,000l. per. annum. If, upon the principle of these interests being the same, it is right to levy this tax of three millions upon one set of the people, in order to pay a bounty, to that amount, to another class—it would, by parity of reason, be yet better, to give them all the wool for nothing, by which method, the landed interest would be still more benefited, through the medium of the manufacturing: and, vice versa, the friends of the manufacturers are absurd, in being so solicitous to regulate the police of wool, for they ought to leave the grower to pursue his

own interest only, seeing that that interest, and that of the fabric, are one and the same.

In like manner, the owner of a coal-pit, and the worker of an iron forge, have, according to this doctrine, the same interest: yet, the collier calls for an export of coals, and the iron worker shouts much louder to deny it.—They are both absurd and ignorant of their respective interests, if this doctrine is just.

In truth, the interest of every man who has a commodity to sell, and of every other man who has that commodity to buy, are diametrically opposite, as well in the aggregate of a nation, as in the case of an individual. All the buyers of wool are interested that wool should be cheap; and all the sellers of it, that it should be dear.

But, says the statesman, who superintends over the whole, I will take care of both your interests, but I will take care of that of the nation also:—foreigners want our wool—they shall not, for that reason, have it.—None shall be exported, which will prevent foreign fabrics working English wool, from rivalling our own. But, as a monopoly of this sort is not meant to act as a tax on the grower, it shall last no longer than you, the manufacturer, pay the same price here, as the same wool sells for abroad: by this method, all interests are secured.—The grower has the same price as other growers, the manufacturer pays no more

more than other manufacturers; and the nation is certain, that foreigners shall not flourish by working up our wool.

It must be sufficiently apparent, that if the idea was adopted, of the *peculiar* necessity of *English* wool to *French* fabrics, and laws of prohibition to flow from it;—that, this only, was the fair and equitable means of doing it—and this would have been a regulated export on one hand, or else, an assize of the price of wool on the other.

But instead of this, the legislature of England acted very differently; they simply prohibited the export, under the delusion, as appears by the memoirs of the times, *to raise the price of wool at home, by encouraging the fabric.* To raise the price at home, was the professed object: When they found, as soon they did find, that it fell enormously, instead of rising, the obvious cure of the evil was, adopting the conduct I have just described; but the manufacturers had cunning enough to dupe them into a belief that their policy was right, only it failed in execution, by reason of the clandestine export; and if that was once stopped, all would be well, and the price rise.

The landed interest believed this fine tale, and for an hundred years, granted all the laws and regulations, prohibitions, fines, penalties, restrictions, and felonies desired. In 1788, they believed the same contemptible story, only the idea now,  
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of the measure being intended to *raise* the price of wool, is no longer heard; it is, on the contrary, avowed that the present price, though 100 per cent. lower than in all the countries around, is too high, and ought to be lowered. The cant word now, is no longer to benefit the landed interest, by raising the price of wool, but by making the manufacture flourish—their interests being the same.

A wide field of enquiry here opens, to explore which, would lead me too far at present: one or two observations are, however, necessary.

The *well-informed* members who spoke in favour of the late bill, dwelt with much emphasis, on the value of land being dependent on the prosperity of manufactures.

This argument is vague, jejune, and inapplicable, unless it is, at the same time proved——

1. That the manufactures of the kingdom, of all sorts, (for all are equally concerned), owe their prosperity to similar prohibitions and restrictions.

2. That the complete and glorious system of equal liberty, which secures, in this happy country, to every man, the fruits of his industry, has not reared the great fabric of our commercial prosperity; but that, on the contrary, it has been owing to such prohibitions and restrictions as these.

3. That all those branches of manufacturing, and mechanical industry, in this kingdom, supported



ported by similar prohibitions, flourish proportionably to them; and that those which are unsupported by any such policy, are deficient in prosperity, proportionably to such deficiency of prohibitory laws.

The men who have ignorantly committed themselves on this ground, are bound to prove these positions, or their assertions are vain and frivolous; and their policy forms no part of one regular and harmonious system, such as ought to be adopted by an enlightened legislature.

It is said that wool is an exception, from the *peculiar* excellence of it; it is an assertion full in the teeth of known facts, because the English wool in question, at the foreign market, sells exactly at the same price as Flemish, Dutch, and German wool; which is a decisive answer to all the assertions and arguments which point that way.

But this peculiarity of excellence—this superiority to all other wool, supposing it to be real, would then furnish a very fair and obvious argument; for in proportion to such superiority, ought to be the advantage which our manufacturers have over all others; and as they have it, in the *quality* of the raw material, (according to their own calculations, they have it in 587,000 packs, out of 600,000), they want it less in the *price*; and in the policy which regulates the trade. No position can be clearer than this, that a fabric can bear

bear to be burthened by the state, in proportion to its advantages, which are of a peculiar nature. Hence, therefore, this excellence of the wool can prove no more than a proportionable deficiency of those circumstances which might, in a different state, defend the policy of greatly favouring it.

Now let the advocates for this stupid doctrine, take those three propositions in hand, and it will be a little amusing to see what sort of work they will make of them: the fact is, that the whole enquiry, (a very elaborate one), to be well pursued, would prove directly against them, in every particular.

It would appear, that to attribute the prosperity of land to *that part* of the prosperity of manufactures which has flowed from such laws as these, would be a solecism in politicks, as no *such* prosperity is to be found in the wide circuit of the whole empire.

That the prosperity of land has flowed from the general prosperity of all arts, all fabrics, all commerce, all fisheries, all navigations, and all branches of human industry; that this prosperity arises from the investment of great capitals, that have accumulated, because protected by equal law and liberty\*.

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\* The capital, annually employed in cultivating land and maintaining labour, must be much greater than at the revolution.—

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So sovereign and supreme has been this great parent of our prosperity, that the advocates for regulation and prohibition, would be puzzled to instance a single branch of industry in a flourishing state, owing not to this general cause, but to their particular one; but if they did find such, most assuredly it would exist in circumstances, that made the possession of it rather a national evil, than a good; and carried on by capitals artificially deviated from better investments.

What makes the agriculture of this country flourish? Certainly it is not our system of legislative policy, because that has, in every instance, sacrificed it to the commercial interest; and wonderfully remarkable it is, that no one generally operating encouragement, was ever given to it, amidst the millions that have been showered down upon manufactures and commerce. The bounty on the export of corn, would have been such an encouragement, if it had been meant to raise the price; but in fact, it was a commercial scheme

—In the midst of all the exactions of Government, this capital has been silently and gradually accumulated, by the private frugality and good conduct of individuals, by their universal, continual, and uninterrupted effort to better their own condition. It is this effort, protected by law, and allowed by liberty to exert itself in the manner that is most advantageous, which has maintained the progress of England towards opulence and improvement, in almost all former times, and which it is to be hoped will do so, in all future times. *Dr. Smith.*

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to feed all the other classes more plentifully, and has had that effect fully.

To what, then, is owing our rural prosperity? Dr. Smith has told us, and truly, "The laws and customs, favourable to the yeomanry, have, perhaps, contributed more to the present grandeur of England, than all the boasted regulations of commerce, taken together."

Whenever, therefore, it is said in Parliament (and there is too much reason to believe such nonsense will be talked again and again there,) that the prosperity of our agriculture is owing to the shackles which have been placed upon it, in favour of manufactures;—wise and wholesome shackles because beneficial to our fabrics—let such men remember, that with the great mass of any branch of prosperity they may chuse to name, their assertion and argument are equally irrelative; that prosperity is owing, not to shackling the hands of a brother, but to the freedom of its own. This necessary discrimination, which has never been made, must be carefully adhered to, or all that is said will be mere impertinence and noise.

For instance, in this article of wool; the present state of the trade is calculated at an export of between 3 and 4 millions, and a home consumption of 12 millions. The export is known; and the home consumption cannot be less than 12; because

because the growth of wool being 600,000 packs, and value of it, raw, 6 millions, the total, at 15 millions, is only  $2\frac{1}{2}$  times the raw material, which is certainly too low, instead of too high an estimate; and in addition to it, is 12,359 packs of Spanish wool imported, on an average of 1785, 6 and 7.

Reckoning the home consumption, however, at 12 millions, must necessarily be moderate, and in the question of wool, whether it shall be exported, or continue prohibited, this home consumption is to be thrown totally out of the question:—it is to be looked upon as absolutely secure to our manufacturers, let what will be the policy embraced; we shall, indeed, have no dispute on this head, because through the whole agitation of the late bill, not one word was ever offered upon the home consumption; the rivalry of French stuffs was all said to be in the Italian market; the foreign trade was alone in question, and I shall, by and by shew, that the legislature have been entirely of the same opinion.

From the export, there must also be a deduction of all in which Spanish wool enters largely, (no inconsiderable part), because our policy, certainly, has no sort of reference to that branch.

To the remainder this observation is applicable:—that as we have no branch whatever of manufacture favoured or oppressed, in which we  
have



have not a considerable export—so we are, by parity of reason, to conclude that we should also have some export of woollens, even if the manufacturers paid as much for the raw material, as the manufacturers of France do.

This is a very material part of the argument, and I consider myself as supported in the conclusion, by the state of every other fabric in the island; a brief recapitulation of which, will convince the reader of the extreme singularity of our police in wool.

#### 1. *Iron.*

Export of English iron free.—Import of foreign iron, 2l. 16s. 2d. duty per ton; but a drawback of 2l. 12s. 8d.—Duty in all cases, therefore, 3s. 6d. a ton. This burthen of 2l. 12s. 8d. per ton, upon all the home consumption of foreign iron, shews that the legislature did not conceive the home consumption of the fabric wanted any favour: Can a shadow of reason be given, why the same policy should not have had effect in wool?

Export of coals 15s. 5d. duty per chalders, and 5s. 2d. per ton. These duties are not meant to prohibit, but to raise a revenue; they, accordingly, do not operate so. I found, at Dunkirk, that almost every house in the city, burnt English coals; and a Dutch merchant from Rotterdam, informs

informs me, that the consumption there, is very great, and that the steam-engines they have erected for draining the country, burn them also. I saw an English collier where I should not have expected it, in the harbour of Bayonne. The hardware, taken in all its branches, is to be esteemed the first manufacture we possess;—and no other idea than that of prosperity, has been heard of in it.

Now let us ask, whether this prosperity has been owing to such a policy as takes place in wool? So far from it, we see no trace of such a system: iron, one raw material of it, is exportable free; and coals, the other material, with a duty. Why should not one principle govern both iron and wool?—Or, rather, if an extraordinary favour is shewn to either, why not to the hardware; seeing that we are dependent on foreigners for a great portion of the raw material, who lay a duty on its export, and consequently it wants more encouragement than a fabric, the raw material of which is at home? To say that our prosperity in iron all depends on coals, has great truth in it; but foreigners have coals as well as we—and by means of them, in Germany\*, are said to make various articles cheaper than we do; but, whether this is, or is not the case, certainly it will be admitted, that the possession of our own

\* In Liege, &c.

growth of the raw material of wool, in the purchase of which, under any system of policy, our manufacturers must have the advantage, is a circumstance equally favourable with that of possessing coal-pits.—We have no monopoly of either—nor does any reason appear, for a difference in the policy which governs them. The cause which has produced the difference, we see, at present, is obvious. The hardware manufacturers would like a monopoly of English coal, and English iron, as well as the woollen manufacturers, a monopoly of English wool;—they have demanded it with clamour, more than once.—Why have they not had it? Because collieries and iron-works are in commercial hands;—the resistance has been as vigorous as the attack. It has been, one commercial gang against another,—and not the attack of wolves in a sheep-fold. The landed interest, which is a generic term for stupidity, folly, timidity, ignorance, dissipation, and disunion, would soon have been cajoled by the old story—*Your interest and ours, are the same; the more our works flourish, so much the better for your iron mines and coal-pits; land and trade are the same.* This dupery would not do: commercial companies interested in these undertakings, fought the manufacturer with his own weapons; saw, distinctly, the *difference* of the interests, and met their foes with union, enterprize, and spirit. The consequence is, that these trades  
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are upon their present footing, which is contrary to every principle that governs in our wool laws.

## 2. *Cotton.*

Cotton, not of the British Plantations, on importing, pays a duty of 1d. per pound, of which, three farthings is drawn back on re-exportation; but, under certain regulations, and in British ships, it is free.—Cotton-wool of our own Plantations, exportable duty free.

The rise and progress of this fabric is, in this country, almost miraculous. We are so far from having any command of the raw material, that we are obliged to import above one million of pounds weight of it from France, under a French duty of one penny per pound; and a great deal more from Portugal:—yet we work up French cotton, and re-export it to France, consequently under double freights, insurance, and charges;—and the fabric, under  $12\frac{1}{2}$  per cent. duty, and undersell those of France from 12 to 20 per cent. and in some articles, much more. It is said, that this is done by machines—but it is to be remembered, that the French have these machines, in a perfection equal, or nearly equal, to ourselves; that is to say, as equal as the copy is ever like to be to the original. Then to what is this surprising superiority owing? To the deficiency of France, in labour, skill, and capital.—The su-

periority of English labour is most manifest in various articles, where it is nominally the dearest. The vast capitals invested in our cotton fabrics, have created such a mass of attendant skill, invention, nerve, and vigour, that no competition can stand before them. It is sufficient only to name this fabric, and see at once, that our policy of wool has no more relation to it, than to a fabric in the moon.

### 3. *Glass.*

I mention this fabric chiefly to shew, that where the legislature might have prohibited, or heavily burthened the export of the raw material, it has done neither one nor the other; British kelp is exported duty free. Duty on foreign kelp, 16s. 6d. a ton, drawback, 15s. Glass, in England, is loaded with some very heavy and burthensome excises, but imperfectly drawn back on exportation, which checks the trade a good deal; yet it flourishes greatly, and in many articles, from its great superiority to foreign, is enabled to stand a successful competition; this is also another proof, that the legislature have it not at all in contemplation to favour the home consumption, since the full weight of extremely heavy duties, is left to be paid by the home consumer. So totally contrary is the police of this article to that of wool.

### 4. *Por-*



4. *Porcellane.*

Perhaps of all the articles of British manufacture that can be named, the cheaper sorts of porcellane have obtained the most decisive superiority, in the competition of foreign markets. The French beat us in the finer articles, which are for the consumption of the great and wealthy only: but their fabrics of this sort, are all losing ones, and could not subsist if they were not in the hands of the King, Queen, or Princes of the Blood: As the raw materials of this manufacture are of very little account, compared with the labour bestowed on it, and are, besides, free, it is at once evident, that we owe our success in it, to no such policy as takes place in wool.

5. *Silk.*

Raw silk, by a singular regulation, pays a duty of three shillings per pound, not drawn back. We produce no silk, but France has great quantities; yet our silks are cheaper, and actually undersell those of France. In silk stockings, the superiority is so great, as to destroy the competition wherever they meet. The manufacture, however, is not so flourishing as it was, though reviving, which is clearly owing to the change in the consumption, of all Europe, cotton and linen having rivalled it every where. The prosperity

it has enjoyed, and may again enjoy, certainly was not owing to the policy of wool, for it is directly the reverse.

#### 6. *Hemp and Flax.*

Dressed hemp, in a British ship, pays duty on import 2l. 4s. per cwt. In a foreign one, 2l. 6s. 9d.—drawback, in both cases, 1l. 19s. Undressed hemp, in a British ship, pays 3s. 8d. in a foreign, 3s. 11d.—drawback, in both cases, 3s. 4d. The export of British hemp is free. Dressed flax, by a British ship, pays 5l. 4s. 6d. per cwt.—In a foreign, 5l. 8s. 8d. drawback;—in both cases, 4l. 17s. Undressed, it pays, by a British ship, 4s. 10d.—by a foreign, 5s. 1d.—drawback, in either case, 4s. 7d. Export of British flax, free.—The policy that has directed the legislature in this raw material, is, point blank, the reverse of that of wool.

#### 7. *Hides.*

In this article, the landed interest being on one side, and the manufacturing on the other, it is very natural to suppose that the same policy governs, as in wool. Something tending pretty much to it, is accordingly found, yet with a sensible difference; for foreign hides have a duty on the import, which is not the case with foreign wool. Cow, or ox-hides in the hair, pay 9d. each,  
—drawback,

—drawback, 8d. Tanned, they pay 5d. per pound ;—no drawback. Indian hides, undressed, 1s. 2d. each. Russia hides, tanned, 8d. per pound, Buck, or deer skins, undressed, 9d. each. To recapitulate them, would be needless; there is not one article, even undressed, that is free. The export of hides is prohibited. The manufacturers of leather have been very well satisfied with this system, and brought neither complaints of smuggling, nor demands for pains or penalties.

The injury of the system would have been felt as much in this article of hides, as it has been in that of wool, if the manufacture had been confined, like the woollen, to the home product; but it has prospered so much beyond that, as to import vast quantities of hides from various other countries, the consequence of which has been, keeping up the price of our own, to a level † with the prices in the countries around us, and of course, the farmer and grazier have not felt the oppression of a monopoly, which would otherwise have been as cruel as that of wool.

The vast, and acknowledged superiority of English saddlery, and English boots and shoes, have given to this article a great foreign export, and is a new proof that English workmen employed

† I am thus informed, but it deserves, and shall have, a more particular enquiry.

on raw materials, at the same price as foreign workmen, can stand, and even thrive under the competition.

### 8. *Paper.*

Foreign rags, for paper, imported duty free; and British rags exported equally free. Very heavy excises are laid on paper, but all drawn back on exportation; a fresh proof that the legislature are solicitous for cheapness of commodities only—for foreign trade, and not at all for the home consumption. The policy respecting paper, is in all respects, (except the import of rags), the reverse of that of wool,

### 9. *Metals.*

British copper exportable without duty. Lead-ore, ditto, paying  $5\frac{1}{2}$  per cent. ad valorem. Unwrought tin pays 3s. 4d. per cwt.

From this review of all the great manufactures of the kingdom, we find that so far from their being one syllable of truth in the observations usually made in favour of giving monopolies of raw materials to the manufacturers who work them, that there is not one single instance of it among them all, hides alone excepted. Iron, coals, cotton-wool, kelp, silk, hemp, flax, and rags, being the raw materials of our greatest fabrics, are all legally exported in their raw state; and every one of them free from duty, coals excepted,

And

And on the other hand raw materials for these fabrics, are imported here under a duty, which is the case with iron, cotton, kelp, silk, hemp, flax, and hides.

What an astonishing contrast is this between the police of our wool, and that of the raw-materials of all our other fabrics! The export is prohibited in a mode, and under penalties, of which we see no trace in any other article of our produce, or our trade; and foreign wool is landed duty free. In no other article is any parallel case to be met with—not even in hides. Such extravagant favours have been given to the woollen manufacturers, it is to be presumed, under the idea that they would prosper proportionably, and push their trade to such an extent, as to repay every party concerned,

But so miserably rotten and defective has this policy been, that so far from pushing their trade, it is the most stagnant, and, at periods, even the most retrograde of any in the kingdom. It may perhaps be asserted, and I believe correctly, that there is not in all the above list of our great fabrics, one in so comparatively low a situation—there is not one of them whose exports in 1787 were not much greater than they had been on an average of twenty or thirty years preceding—But with this of wool mark the state:

1757 ex-



		£.
1757	exports ———	4,758,095
1767	—————	4,277,462
1777	—————	3,743,537
1787	—————	3,687,795

In 1759, 1760, and 1764, the export was above five millions. I will venture to assert, there is nothing like this declension to be seen in any other fabric in the kingdom: this has for thirty years declined—while every other has made gigantic advances. All others pay duties on the import of their raw materials, this imports those materials free. All others are absolutely without favour in the price of the raw material of the home product; paying for British materials as good a price as any foreign ones receive—but on the contrary this has a bounty of above three millions sterling per annum paid it by the wool grower. The effect of this policy is so remarkable—and runs so totally contrary to the expectation of the legislature, that it well deserves enquiry how it has happened that the assistance given has proved mischievous, and the encouragement so liberally bestowed has had every effect but what was to be wished; since a more remarkable spectacle of failing policy never was beheld.

The answer that has been usually given to pleadings for a more liberal policy, is to recur to the ridiculous idea, that our long wool is so superior to that of all other nations, that the French  
can

can get no other to work up their own with ; and that it is absolutely and essentially necessary to them.—This, I take to be the weakest and most frivolous argument, that folly or stupidity could rely on : if they can not do without our wool, they will have it in spite of felonies, gibbets, racks, and wheels. Let a Turkish Basha bring his stakes for impaling, or his crosses for crucifying ! long, and ample experience, in every government of Europe, speaks the impossibility of preventing clandestine trade, when the temptation is great. This supposition secures the greatness of the temptation in every possible case ; consequently, the *argument*, even granting the *fact*, falls at once to the ground : but the fact is as false, as the reasoning is inconclusive ; and has been proved so, again and again.

A consideration of the circumstances necessarily flowing from just principles, would have enabled our statesmen to have foreseen the event that has taken place. A monopoly, given under such severities as to be effectual, must promise well to lay the grower at the mercy of the buyer, and consequently to sink the price greatly ; this we have seen has been regularly the case, to the amount of a depreciation of one hundred per cent. From the time that the manufacturer found himself in the secure possession of a bounty of near four millions

millions ‡ sterling, which went equally to his whole fabric, for home consumption, as well as foreign export—he found clearly that there was more

‡ To state exactly the loss is not easy; it has been calculated at three millions—but, I believe, with little accuracy. Sir Joseph Banks estimates it at 3,400,000l.—I believe it four millions, and shall take some other opportunity to give my reasons.

But though the difference of price between the two countries, amounts to this on the whole growth, still it may be said, that an export would not add that sum to the advantage of the grower, as the price would fall in France; the remark is obvious, but I believe very erroneous: If any considerable quantity was exported, the prices abroad would certainly fall; but I do not conceive that the export would amount even to the trifle that is smuggled. The price would rise in England to the height of their highest markets, because till such level was gained, (which, however, the mere passing an Act might effect), it certainly would go in quantity sufficient to equalize the price; but when it came to be a matter of competition between Lille and Norwich, Abbeville and Leeds, who should buy the wool, it would be decided, as most other commercial competitions are decided, between the two nations, in favour of that which possesses most industry, and most capital. Though the price, therefore, would rise cent. per cent. here, it would not fall there. The farmer, however, would not profit of the whole, because Government would share it, the price here, would remain so much short of the natural rise as the tax amounted to, which would be laid upon it; If that tax was ten per cent. the rise of price would be about (not correctly) ninety per cent.

Then, says the advocates for the present system, the French manufacturers would have their wool as at present, while ours paid ninety per cent. more for theirs.—How could they bear such a situation? *Answer.* They would bear it as every other fabric in the kingdom bears the same situation; but above all, they would bear it as our manufactures of Spanish wool bear a yet worse situation,

more profit hung to a limited, than to an extended manufacture. His object was, to square his trade to the home growth of that wool of which he had a monopoly, except the import of the very finer sorts of all, such as this Island does not produce; and he conducted his trade so correctly to these principles, that not one pound of any other wool was ever imported. If he had proceeded on different principles—and like the leather manufacturers, had driven the export trade as far as it would go, by imported raw materials, he knew that the price at home, would rise to a par with prices abroad, as it has done in hides, and his bounty of four millions would consequently be lost. But a necessary consequence of thus putting an artificial limit to a trade, and squaring it so nicely to a given quantity of the raw material, was periods of declension, and in general, a sickly constitution; for that spirited, and vigorous advance, that restless and indefatigable endeavour at pushing still further, which have carried all our

tion, for they buy that material *dearer* than the French do—and yet stand the competition with them at foreign markets.

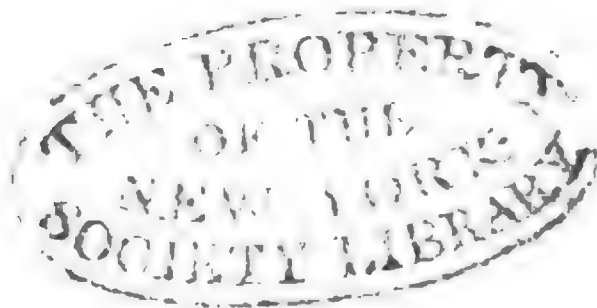
The Minister, in the wool debate, attacked the grower's profit on another ground:—*If, said he, you are encouraged to raise more wool, as you assert—then the additional quantity would sink the price, and where would your gain be?* It would be where the farmer's is, who spreads a dunghill on his field.—You must be very eloquent, Sir, to convert dung into moonshine; though there is a precedent for extracting sun-beams from cucumbers,

other

other great fabrics so far, could not, in the nature of things, take place under the shade of a monopoly which would suffer by any such attempt. New exertions, new inventions, and all that animation that attends progressive prosperity, would, at the same time that it spread and diffused the fabric in general, lessen the profits which the masters made of the monopoly, and of course, they would take care to instil ideas as contrary as possible. And we have, accordingly, seen that no advance has been made in the trade, *nationally*; much in Yorkshire, but at the expence of Norfolk and the West; and while much prosperity is seen in parts, the whole, comparatively, languishes.

This state of confinement—these shackles which the profit of the monopoly has laid on the manufacture, have had an effect which I have not heard a syllable of in any speech, or in any publication on the subject; yet is it a most obvious and important one.

The following table shews the import of long combing wool into France, in 1784, from the North: Extracted from the Bureau General de la Balance du Commerce.



Ran



## Raw Wool.

	lbs.		livres.
Hanfeatic Towns	1,432,266	at 21 fols 6 deniers per lb.	1,539,685 . 19
Emperor's Dominions in Ger- many and Flanders	495,428	at 26 fols 6 deniers	600,199 . 8
Germany and Poland	160,368	at 21 fols	168,386 . 8
Holland	948,358	at 26 fols	1,232,865 . 8
	<hr/>		<hr/>
	3,036,420		3,541,137 . 3

## Spun Wool.

Hanfeatic Town	8,275	at 4 livres 15s. per lb.	39,305 . 5
Emperor's Dominion	12,075	at 3	36,828 . 15
Germany and Poland	10,966	at 4	43,864 . 0
Holland	338	at 4	1,352 .
	<hr/>		<hr/>
	31,654		121,350 .

Besides

\* 12,651 packs.

Besides this, they import a considerable quantity of long combing wool from Turkey, the product of the rich vales between Constantinople and Hungary. It is remarkable, that the French have no rival whatever in this trade: They command the surplus of the product of all these countries, without an Englishman daring to appear against them. This is not the case in any other trade in the known world; whether it is great or whether it is small, the English are every where their rivals; and generally their successful rivals; but so curiously has the monopoly defined the line, beyond which no exertions shall be made in Britain, that our manufacturers will not, for a moment, have an import from abroad, in contemplation, while by abstaining from it they have such enormous profits at home. Thus the interest of the wool-grower, and the interest of the nation are correctly the same; an extension of the fabric would flow from a breach of the monopoly, the nation would flourish, but the manufacturers would lose those concentrated and unjust profits which they derive from the monopoly, and which fixes their interest, and that of the land, far as the poles asunder.

The encouragement to increase the growth of wool in the kingdom, is another point of most essential importance, in this enquiry.

The annual returns of all the sheep in Britain, may be stated at between fourteen and fifteen millions,

lions sterling to the farmer : Of this 600,000 packs of wool, at 10l. make six millions, and eight are from the carcass. The assertions in the House of Commons, that the wool was only one-sixth of the total product of the sheep, was of a piece with every thing that was said in support of the late bill ; as if all stock female sheep did not yield seven fleeces before they are killed ; wethers three and four, and all mutton whatever, two at least. If wool here was at the same price as abroad by a legal export, four millions at least would be added to the value. The gross return from sheep would be eighteen millions, of which, wool would be ten, or more than half the gross product. What an immense encouragement to increase the breed ! and by increasing the number of these animals, so useful to the farmer, what an improvement to agriculture by their fold ! What an immense increase of the manufacture might flow from this, especially when we take into consideration the low prices consequent from employing machines, which are now introducing with such promising success.

A success promising, however, under the present policy, only to the master manufacturer—The poor will be deprived of their spinning, not to extend the fabric, and add proportionably to the national wealth : No : The monopoly has drawn a line that cuts off all such extension ; but to keep the trade at its present level, only with a vast ad-

dition to the profits of individuals—of those individuals who are already fattened with the best blood of the landed interest.

View, therefore, this singular police of wool in any light possible to place it in, the result is the same in all the national fabric, suffers under the monopoly as much as the wool-grower, who has limitation instead of extension, languor instead of activity. You find discontent where you might look for felicity ; and all the consequences of sloth where industry and enterprize would, under another dispensation, triumph with the energy that has given such an accelerated advance to iron, cotton, and every other fabric in the kingdom.

The manufacturers in their examinations on the late bill, laboured hard to establish these facts.

1. That English long wool was of a strength, staple, colour, and fineness superior to all other wool in the world.

2. That French fabrics made partly of this wool, undersold similar English fabrics. At the same time they admitted, and even stated in evidence,

3. That all the wool thus worked up by the French, was cent. per cent. dearer than such wool in England.

These three facts from the evidence of manufacturers, I desire to combine for a purpose very different from their own.

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Are they not a compleat and decisive confirmation of all the preceding reasoning; and do they not shew too clearly to admit any doubt that the monopoly is attended here with such profits, as to banish all that exertion, spirit, and energy which enables our other manufacturers working up materials imported under duties, and enjoying no favour in the price of our own, successfully to enter into competition with the rival fabrics of France, wherever they are to be met with?

With the prodigious advantage of the raw material, 100 per cent. cheaper than the French—and three-fourths of what they use, much better in quality, as well as so much cheaper---yet they are underfold by that people! Is there any similar instance in the annals of our trade? And may we not pronounce, that either the assertion was a gross perjury; or else that our police of wool has absolutely failed of effect in every expectation in which it was founded?

Another point in this enquiry not to be neglected, is the amazing contrast between the principles which have governed the legislature in relation to the home consumption of woollens, and that of every other fabric recited above.

The home consumption of hardware is taxed  
2l. 12s. 8d. per ton.

That of cotton pays the duty on cotton.



That of glafs pays 16s. 6d. a ton on kelp imported; and excises without end.

That of filk the duty on the import.

That of hemp pays 2l. 4s. per cwt. duty on import.

That of flax 5l. 4s. 6d. per cwt. duty on the import.

That of leather pays pretty considerable customs on the import of every article; and a heavy excise on the whole.

That of paper pays very heavy excises.

The principle which has governed the legislature in laying these duties is obvious—Drawbacks cover, or are meant to cover, the foreign export; but as to the home consumption, the burthen is so universally imposed, as to shew in the clearest manner, how little Government had its alleviation in their idea: This is not the proper place to enquire into such a policy: When such prodigious burthens must be borne by the people, no better methods probably could be resorted to. But we may fairly ask, why is wool to be an exception to all the rest? That encouragement which is given to every other fabric, is given to the portion exported—Why then is so enormous a bounty as four millions sterling not to be given upon the principle which governs every other case, but to be extended equally to the whole fabric? There appears not to be a shadow of reason for so violent

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an exception to the rule that governs in every other fabric. But if the landed interest only, is to be taxed in favour of this fabric, why in the name of common sense is it not to be taxed, for the same purpose which in all other cases is in view? Let a certain sum be added to the land-tax, and paid by way of bounty on the export of woollens, and at the same time make the trade of wool free. If the land must bear this cruel, unheard of, and unexampled burthen, at least let its operation be similar to all other bounties, and not extended where the legislature declares by its own conduct, that encouragements are not wanting.

After this detail, what are we to think of such shameful and degrading ignorance as was betrayed upon this question by so many members of both Houses, and among them by some in the highest offices of the state? What other emotion than contempt can rise in every honest bosom that is open to conviction, at such stuff and impertinence being talked with all the gravity of oracular axioms—*that the landlords and the manufacturers form the same interest; that the prosperity of the former, called for granting the prayer of the latter, who were men to whom nothing but gratitude was due.* If these declarations were false, hypocritical, and aimed not at truth, but at *borough influence*; shame on such a contemptible prostitution, framed to level every generous feeling in the dust, and make

men of the greatest talents the detestable tools of others who have none !

But the misconceptions we every day meet with in conversation on these topics, shews that much that we suspect in Parliament to be derived from a worse origin, may, in fact, be pure ignorance, and, perhaps, chiefly to be attributed to those two great temples of political darkness, the Universities, where these men forget a portion of those acquisitions elsewhere imbibed, that contribute to the culture and decoration of the human mind ; but add nothing useful in return \* : and take their seats in Parliament compleatly ignorant of every thing, the knowledge of which, would most contribute to render them an honour to themselves, or useful to their country.

From a series of facts so luminous and compleat, one would think there could be no appeal ; and that what is right to be done, would be done, in such a case. But if we look to the constitution of the House of Commons, we shall find, that Ministers have an interest in oppressing the land, and burthening it in favour of the towns : The same interest regulates the feelings of oppo-

\* Travelling is one of the best schools for attaining true political knowledge ; but when we see the men who are generally chosen for tutors, all wonder at once ceases, that it should contribute to give prejudices a deeper dye, and plant no valuable knowledge in the mind.

sitions. What party will make itself obnoxious to the powerful, by protecting the weak and helpless ! For great as the property of the farmers is, they are unconnected, weak, ignorant, and of no account. As to the landlords, they are the slaves of a Minister, or a party ; and so ignorant of their real duty, upon these questions, that if they had the wish to vote truly for their country, it would be a blind hazard—a toss up whether they should say aye, or no. The history of the wool bill fully justifies these assertions.—The landed interest, at present, therefore, can have no chance for justice : Whenever the true-enlightened friends of it will associate like a band of brothers and make the rules of the association their first political guidance—then, indeed, they might hold up their heads, and demand, with firmness, **JUSTICE, AND THEIR RIGHTS,**—that which they cringe for at present, and are spurned.

But there is another interest besides the landlords and farmers, who are very materially affected by the present police of wool ; and that is the poor.

Such is the baleful influence of the monopoly, that while it robs the wool-grower of above three millions a-year in the price, it at the same time starves the industrious poor by thousands. The spinners of the two counties of Norfolk and Suffolk, for this twelve-month past, have earned no



more than threepence-halfpenny a day, which is under what I found to be the earnings by spinning, throughout France; yet under this wretched pittance they are employed, and when trade revives, the enormous profits that will be made by the holders of the yarn, must be obvious to the most careless attention; in the spinning only, it is cent. per cent.

These famished wretches fly to the parish, and thus the landed interest have a second, and most heavy burthen to support; rents are affected by the vast rise of poor rates, and hundreds of thousands of pounds are added to the burthens of the land, as if the tax of three millions to this fabric, in the raw material, were not sufficiently oppressive.

Sir Joseph Banks proposes that yarn should first be exported:—I am clearly of opinion that raw wool should also be exported; but as it should be under a moderate duty, it would be a proper encouragement to the yarn trade to let that go free.

By this method, the miserable, starving poor, which our fabric will not employ, would be fed by foreigners.

There is the greatest reason to believe, that the monopoly is attended with more ill effects, even than we have yet recurred to: The giving so monstrous a bounty on the whole of the raw material, stamps the profit that is to be made in every stage of the manufacture; the men who are in the possession



session of such an advantage, will naturally rely upon it :—That reliance—the taste of sweets that flow from no activity of industry—becomes necessarily a relaxation of that spirit of exertion, which animates the labours of a man who knows he has a vigorous competition to struggle with : the habit of relaxation is dangerous—it contaminates the vital principle of activity—it engenders a desire of equally easy profits in other branches of the trade—till it becomes visible to all, in such cruel oppression of the poor spinners, as to deal out famine, instead of food, and throw them, with an † unrelenting hand, for support, on the taxed, defrauded, oppressed, and ruined land. What reason

In the expressions of apparent severity against the trade, which I use in this Paper, I may easily be misunderstood. There are, doubtless, in all trades, numbers of worthy and respectable characters, quite undeserving of any harsh expression. Throughout my observations on this, and former occasions—my aim is the monopoly ; it is the monopoly, or rather the legislature that gives it, to whom the charge of cruelty is most due. No trade in the world will refuse such a bounty, and all the cruelty, injury, and oppression that flow from it, flow from it *necessarily* ; and by no means personally from the characters of the men. It is true, that when they come for new severities to enforce that monopoly, they are personally concerned, in proportion to the part they take, and we need not observe, that the landed interest have, in the late application, been dealt with in a style of severity, that ought, for ever, to banish all ideas of their interests being the same. But I do not, therefore, blame them ; I think, on the contrary, they were wonderfully modest, for had they brought in a bill, giving themselves the wool gratis,

reason is there for believing, that the same influence is not felt in the prices paid for other branches of labour, in this fabric? We know the earnings of a weaver, at Norwich, to be, on an average, no more than six shillings a-week; which is lower than is paid in any branch of iron, cotton, hemp, flax, glass, hides, porcellane, or paper.—I believe it is full forty per cent. lower. In the article, also, of charging the master manufacturer's profit, will not the same ideas prevail? Will those be moderate, and trade for small profits, who set out with a bounty of one hundred per cent. on the raw material?—Who, in the very first step they take, (the spinning), make so grateful a return for that bounty, as to send the women and children of whole counties to the parish! It is not human nature, that such a thing should happen? the same spirit governs every step of the fabric, and the consequence is glaringly apparent, in the export of the manufac-

gratis, and assigning the carcass to the farmer, such bill would have passed; and I am justified in the idea, by the fact, that there was not one syllable said in either House of Parliament, in defence of their proposition, that did not equally defend such a measure. In point of injustice, to rob a man of half his property, is exactly the same as to rob him of the whole; and a guinea will hang a man as effectually as an hundred thousand. The political principle, also, of befriending land, by encouraging manufactures, must be equally extended, if true. If you seize half my wool for such a purpose wisely, you are justified in taking the whole.

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ture being the only one in the kingdom, that is in a state of declension †:—all others, where freedom prevails, and monopolies are banished, are thriving, rising and vigorous; this alone decays from a complication of inward ailments, the dregs of a rotten constitution.

However weak any particular detail of the means hitherto taken in England, for the promotion of the woollen fabric, may prove—yet I can conceive that there are men, who, attaching themselves only to original principles, may advance, generally, with certain authors, that the wealth and power of a modern society, will be found to depend, very much, on the national manufacture of all national raw materials; and will, from that general idea, defend any system, however individually absurd, which tends to create, or secure, so great an advantage. To such a man I would reply, by at once joining issue with him on his first principle; and debating nothing more than the best means of arriving at an end, we both should equally have it in view. If such a general observation was made, in reply to what I have advanced, it would be founded on a misconception of my argument, for, under the police I contended for,

† It has been rising since the American war; but compare the last fifteen years with the preceding fifteen, and the decline is considerable.

I should

I should confidently trust, that not one pound of wool would be exported. Knowing the importance of the manufacture, the infinite importance of it, I would propose no policy which could check, injure, or lessen it: on the contrary, I wish to put it into a situation, which facts, widely spread, and uniformly speaking, shew to be prosperous, in the instances of so many other fabrics. Let me ask such an imaginary opponent, if iron, hemp, flax, rags, kelp, or any other raw material allowed to be exported, are really sent abroad?—If wool is exported from France, where such export is free? The answer is, a direct negative. Let our woollen manufactures be secured, in their consumption of the raw material, by the same means, by the mass and progress of their prosperity.—The monopoly ought to be destroyed, for the support of the fabric: to put the issue of its future state on the industry, activity, and vigour of British exertion, backed by British capitals, and cherished by British liberty, is to put this fabric on the same footing, that has conducted every other to a state of prosperity and splendor, that is the envy and admiration of Europe. It is to listen to the cool dictates of long experience, and multiplied facts; and by no means to venture an experiment of theory, dubious in its principles, or hazardous in its operation.

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The good of the national agriculture, and the interest of the land, demand that this fabric should be prosperous; THEREFORE let it be emancipated from a situation, which one hundred and thirty years of dear-bought experience have proved to be its bane.

The conclusion of the whole is, that all the interests of England are arranged on one side, and the master woollen manufacturers on the other: not the fabric itself, for the interest of that, and of land, is correctly the same. And the question that ought now to be at issue is the following:—and if there are any remains of spirit, or motions of life, left among those who call themselves the landed interest—it will be at issue every session—Shall the landlord—the farmer, and the poor?—shall the State?—shall the commerce of the kingdom?—shall every great, and leading interest in it, continue to suffer, merely that some hundreds of master manufacturers should continue in the possession of a bounty, which they have applied totally to their private use? While they rob the landed interest—starve the poor—and depress the general prosperity of the fabric? This is the great question; and let not a session pass, in which the Right Honourable Orators, on the two sides of the House, shall not stand forth, manfully, in the face of their country, and boldly declare the monopoly right and true policy, and  
ought



ought to be adhered to. Commit them upon the question—drive them to a declaration \*—pin them to the avowal—return, year after year, again and again, to the attack.—Truth and good sense must, and will spread in such an enlightened society as this; the landed interest will find the necessity of combining, and then the proudest leader, gifted as he may be in volubility of eloquence, will find it necessary to be consistent with the policy of the empire, and not leave wool, a monument of injustice, singularity, and folly.

A. Y.

### SPINNING-MILLS FOR WOOL.

**H**ALF-a-crown and 3s. a day publicly offered for wool-combers, must be classed among the proofs of that decline in the manufacture of long wool, which induced Parliament to grant it, the late wool-bill of execrable memory. The following advertisement appeared for some months last spring in the Norfolk and Suffolk papers—a clear proof that no other measure was wanting for cure of the evils, real or pretended, than a little time. To which alone they can trust now, for

\* We have already heard, the good sense which one of them can talk on the subject.

with

with their bill they will find smuggling not at all checked by their violent measures, but by very different causes.

*Wool-Combers wanted.*

CONSTANT work for all good hands that apply, with blanks from their society, to William Toplis and Co. of Mansfield, in Nottinghamshire.

N. B. Any tolerable hand may earn 3s. per day, and a very good one 3s. 6d.

I had the curiosity to enquire what was the manufacture of Messrs. Toplis and Co. and I was informed that they had erected a mill for spinning wool, at Cuckney, seven miles from Mansfield, not jennies, but a machinery in the nature of the cotton mills, and that the want of combers which occasioned this advertisement, was for combing, in order to supply and keep this mill going—These works will doubtless spread, and by and by become general, and very much it is to be hoped that an apparatus will be invented for performing the combing also, and then the stout hands at present confined to the comb-pot, may be better employed in other labour.

The gentlemen of Suffolk who are informed that such a revolution is making, and that something ought to be done for the employment of the poor, will surely, from humanity, as well as interest,  
see

see the necessity of pushing the culture and manufacture of hemp, by every method in their power. No farm ought to be let without tying the tenant to sow, annually, a certain number of acres: No gentleman with land in his hands, but ought to sow every year a field of it, and direct the fabric. Governors, trustees, and guardians of assembled poor, should turn them all to spinning hemp; and no possible measure omitted for giving force and efficacy to a plan, become essentially necessary to every interest in the county, the wool-comber alone excepted. I proposed this plan too late the present season for seed sufficient to be procured--but against next year the greatest quantities desired, may be had, and I earnestly hope that proper and general steps will be taken to render such a plan beneficial as its nature will admit.

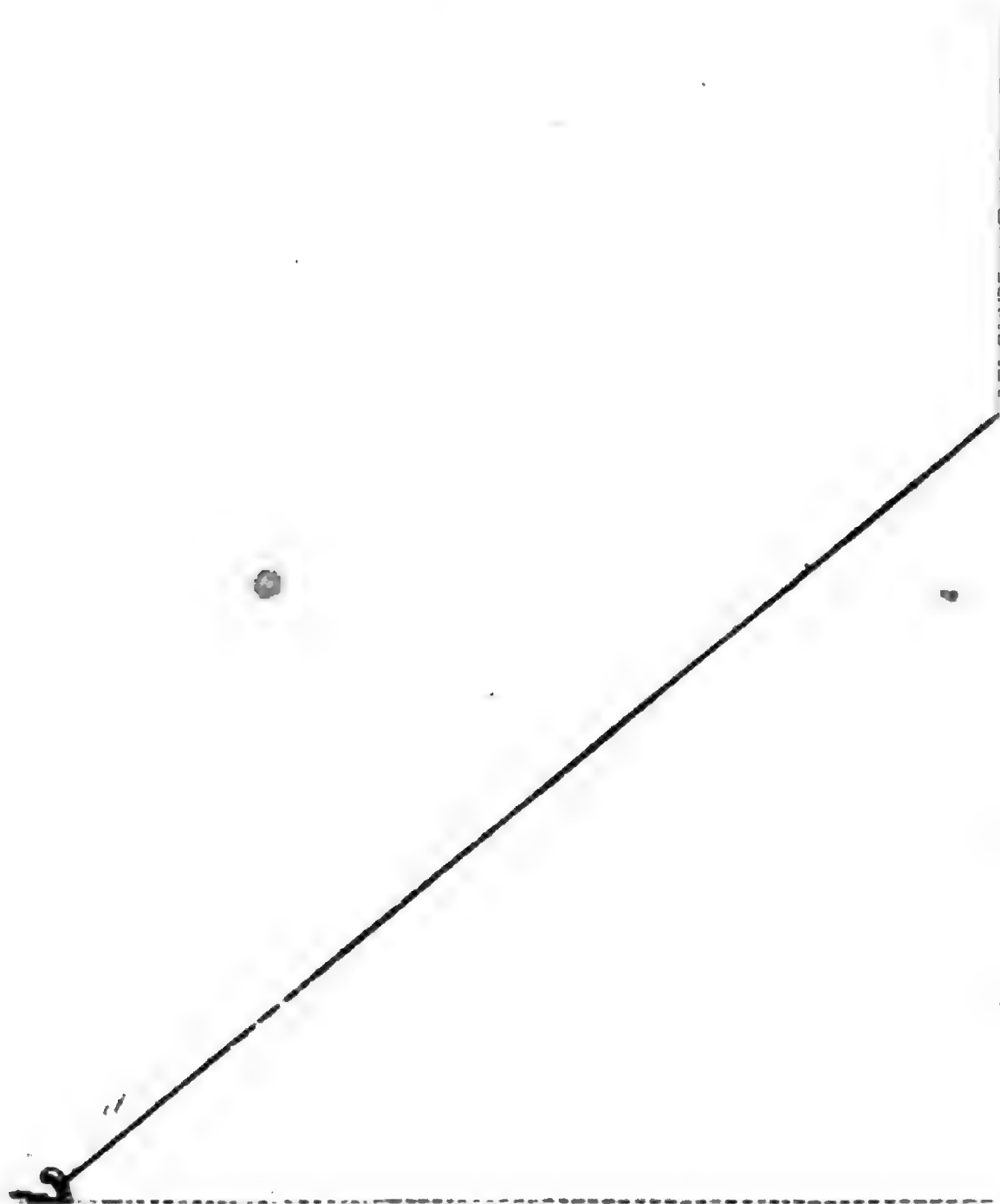
A. Y.

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## APPARATUS FOR SECURING HAY AND CORN-STACKS.

(WITH A PLATE.)

**H**AVING lately had the pleasure of accompanying Sir Joseph Banks to his villa of Spring-Grove, near Hounslow, I remarked his method of using a stack-cloth, which seemed to me the best I had ever seen; simple, cheap, easy to execute,



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acute, and perfectly effective. The annexed plate, (the drawing for which he favoured me with), will explain it much better than a description.

Cloths spread immediately on the hay are soon rotted, from the reverberation of the joint heat and moisture directly under, and in contact with it. At the same time, the surface of the stack is damaged, by the same impediment, to the steam rising freely. By raising it along the middle, a free current of air prevents both these evils.



## A TOUR IN SWISSERLAND, IN 1786.

*By Mons. Lazowski.*

**I**N going to the canton of Underwald, by the lake, you cross the part where it spreads two branches, which is in a small island, situated in the branch opposite to that which we had navigated, where the Abbé de Raynal has raised his monument to the Helvetic liberty. I went not to that spot the same day; but I wish to end what I have to say about the lake.

This island is of a small extent, at the Northern point of which, the ruins of an old castle may be seen, belonging to the canton of Lucerne. The Abbé de Raynal, ought not to have erected

his monument in this canton, devoted to perpetuate the remembrance of the epoch of liberty:—Its place ought to be in one of the three popular cantons, and upon the spot where the foundation of this liberty was devised, and cemented by the three famous citizens, so well known in those three cantons; but they have refused it, and given this reason: that this epoch was imprinted in their hearts, and they would take care to immortalize the remembrance of it, in the memory of their children. This report is contradicted by another, which appears not to me improbable. Suspicious, and jealous of their liberty, as simple and pure democracies must be, they have considered that act, as a kind of taking possession—a dangerous precedent—a participation of the sovereignty—by a foreigner, a Frenchman, unknown, and in whom they were supposing a minion. If those ideas look strange, before we judge of them, it is necessary to remember, that a very simple people are in question; a people, almost without any communication abroad—jealous of the Governments which surround them;—who believe nothing good, but what has been sanctioned by their fathers—who see a danger in all kinds of innovation, because the least change in the neighbouring cantons, has brought great ones in their constitution, who have constantly before their eyes that liberty procured by the courage of  
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of their fathers, of which they are so jealous, that they suspected the excursions of General Pfiffer, in order to take the measures and elevations necessary for his plan of the country, who refuse to open roads to facilitate exportation and commerce, because the communication with strangers would alter their manners, and their natural bulwarks would be less inaccessible. In a word, it is necessary to remember, that in those cantons, the people vote by heads, at sixteen years old, and that one of these ideas, started by a single citizen, has been sufficient to occasion a ferment, and to get the Abbé de Raynal's proposition rejected.

Be it as it may, this monument is, perhaps, better situated than any where else : it is impossible to navigate the lake, whatsoever could be the place where you intend to go, and not to see it.— Every thing which surrounds you, calls to your mind the object of this monument. But foreigners are invited to stop there and to consider the banks of this lake, not with the frivolous curiosity of people who look for nothing but pleasure, but with the sense, and the religious respect, with which they cannot but be affected.

This monument has been much spoken of, and it is rather difficult, not to be disposed to judge of the Abbé de Raynal by it. I have heard very different opinions : indeed, I will confess,

that it has given to me no unfavourable idea of its author;—he had just published a work, which makes a kind of epoch in our time, and tends to spread ideas, known, perhaps, but not generally enough, by all kinds of people; which teach nations, that they have unquestionably the right to judge public men, and call them to an high tribunal. The monument is pretty exactly described by M. Mayer.

In this navigation we have seen, a great way off, the small town of Gersaw; it makes a commonwealth by itself, and has some manufactures. For the happiness of its citizens, it is not necessary to belong to a great State; this phenomenon is a proof of the political wisdom of the Swiss.—Their commonwealth exists not by the jealousy of great powers which surround it, but without being reduced to creep under the imperious laws of its neighbours, it administers itself, quietly, by laws, which it has power to make and to alter.

This lake is navigated by two kinds of boats, in one of which, the bottom is but the trunk of a tree hollowed, two boards are joined to the sides: these boats are used only for fishing, and sometimes to be carried quickly from one place to another; two men only may stand in, with safety: the first bottom is pierced with holes, through which, water penetrates: the inside of the boat is separated from that fore-part by a board which



which makes a water-trough for fish ; but besides, this is contrived in order to give a more regular motion to the boat.

The second boats are large and flat-bottomed ; they may draw, safely, two feet and a half of water, and carry to one hundred quintals.— Their construction costs sixteen to seventeen louis, —they are made with deals, and can be used three years only.—A law prohibits to use them above that time.—They are generally employed to carry goods by the river, and they do not get up again.

The constitution of Lucerne is not aristocratical, but oligarchical ; its springs are weakened, and it subsists not by its weight, but because it makes a ring of the Helvetic chain.

They have, at Lucerne, nobility :—there are some old families, but they have no rights, no legal superiority over the other citizens ; nevertheless, by an oddness, which must have proceeded from the constituent vice of their state, nobility is gotten by the admission in the council :—the new member believes himself superior to a man who is, and must be, free—separates himself from other citizens, and, henceforth takes his place in the meetings which are held three times a-week, in what is called the *Tribune* of Noblemen.

However, parties are not always a proof of corruption ; perhaps are necessary, in free govern-



ments :—they keep the citizens, or their representatives, in a necessary activity and jealousy ; but these manners are necessary—the love of the Republic must prevail, and public spirit must animate all the individuals, otherwise those parties quarrel for nothing but power, and the public good is forgotten. The state may subsist, still, some time—those parties may maintain a remain of life, but this is but a remain, which would fall with the occasion.

Lucerne has constantly furnished troops to France; the conformity of religion, the want of fortune and employment at home, have invited the youth to resort to her, in order to get employment in the army. A good retreat of a general officer, is a fortune at Lucerne: All the young people come back, and bring with them the manners and customs of their garrisons :—they play, give the taste of expence, luxury and dissipation. They have lost a great part of that prepossession for the ancient manner which is so precious, and so necessary in a free government ;—they have taken other habits, and are imitated by the youth.

Parties do not contend for the glory of being useful to their country, according to their abilities ;—they do not try to get any useful laws, or undertakings adopted.—What they contend for, are the profitable offices, and the nomination of  
their

their sons or relations, to the council and to the livings. They endeavour to get some interest in a law-suit; and low, narrow, and mean personal interest, is almost the only principle: It results from it, that laws are mute against the strongest party; and their power is very small against any member of the council, who would be bold enough, to stand against a council which is perpetual, and exercises, in fact, the sovereign power, at the same that *it is a judicial and supreme court.*

That the supplying foreign countries with troops tends to hurt the political liberty of Switzerland, hath been often observed; and I am sensible of the truth of it. The ancient simplicity of their manners is also much influenced by it. Let them grow rich—and then corruption will be as prevalent as in the rest of Europe. Such is the result of this oligarchical government—vicious in its principle—that it would be afraid to make new laws, or any useful regulations, if it was necessary to strengthen them by the authority, with which every government must be armed.

The people, are not only divided into regiments of national militia, as through all Switzerland, but each individual is provided with arms.—Now, though the principle of active resistance should not be admitted—though the recourse to arms should be punished as rebellion, (as the case has happened ten years ago), yet,

the government is afraid to call for the guaranty and help of foreigners; it is ashamed of its weakness, and to be reduced to publish the defects of a stormy constitution, which scarcely can stand by itself. The people, in the country, are not molested, except by some private vexations of bailiffs, who have some interest: but the power of the bailiff is felt only in case of contraventions to the laws.

In the middle of that apathy for the public good, I was happy to find a man, (whose virtue cannot be too much praised, M. Durler,) unmoveable in his principles—has no guide but his duty—and looks for no reward but his inward content. Stranger to all parties, he votes according to the dictates of his conscience: and in all public operations, he is incapable of disguising his opinion.

He has just constructed a very fine wood bridge near Lucerne, which has cost but fifteen thousand florins; whereas sixty thousand had been before asked for it. I have seen that bridge, and been an admirer of its solidity, and chiefly, the ingenious means used to give a regular bending to the beams which form the arches; divided upon the whole length of the pression of the weight, and adding as much to the solidity as to the beauty. That bridge is covered with a roof, and with planks on the side; so covered, it will last

two hundred years at least, and very few repairs will be necessary; but without that cover, it would have lasted fifty years only, and repairs would have been done yearly.

Bridges, in Swisserland, are all covered: this enlarges the expence undoubtedly, and cuts off the agreeableness and lightness to the eye.—They are all built with fir, and without those roofs they would last but little time:—this method deserves attention.—Where the construction is oak, it is certainly more solid; but it is beyond a doubt also, that the oak-wood exposed to the rain and sun, is soon hurt.

Foreigners are permitted to live in Lucerne, and to purchase lands, by a simple permission; they can even be admitted citizens, in paying a composition, which difference may be carried sometimes, so far as two hundred louis. This must not astonish us: it is not a vigorous aristocracy, established upon a large basis, but a narrowed oligarchy, which holds the sovereignty, and consequently cannot be afraid of a participation to the sovereignty, which is absolutely and exclusively concentrated in it: All offices belong to the members of the *petit conseil*.

The finances of the republic do not amount to more than two hundred thousand florins; about four hundred thousand of our livres: what yields that revenue is the produce of customs:—woods  
kept



kept upon a bad foot—the infeoffed tithes, which are not, by far, so numerous as those of the other cantons. The produce of the tithes is carried with exactness to the public treasure, because if the bailiffs are the necessary administrators of them, in their bailliages, they have particular under-administrators in every village, to whom they must exhibit the accounts. The object of the mint is not high—the produce of some small taxes upon the consumption of the town; and of tolls paid upon the highways, which ought to be employed in the repairs of them. As to this point, the bailiffs defraud the treasure, in making some compositions with the people, who have been condemned by them to the fines, and who would appeal for redress; they compound for the half-part, which would belong to them lawfully, but only jointly with the republic: this last fact will corroborate what I have said about the conduct of public officers.

The criminal justice is administered upon the same basis, of which I have already given an account: The *Carolin code* is the law: This is a true phenomenon, that the French should have almost entirely lost the remembrance, and the notice of the laws made by their first great legislator; and that those laws should be found to operate so strongly in Switzerland. Though this fact may be considered as an unquestionable proof of Helvetical



tical simplicity, of their strong adherence to the manners and customs of their forefathers, and their aversion from all changes, nevertheless, I cannot but think, that the example of other nations who have improved their laws, ought to have induced them to alter their criminal code.

Whatever may be the opinion of others, as to that point, it seems to me impossible not to condemn their manner of proceeding. Witnesses are heard publicly, by judges; that is to say, by the small council assembled: but it is not as with trials in England; one is no more alike to the other, than darkness to light.—The prisoner is not present, and does not even appear before the council; it is the great Judge who receives his answer, and his explanations about the witnesses; so that the prisoner is to depend entirely upon his mercy. When the trial is closed, the great Judge goes to the gaol, and, in presence of three sergeants of the town, (a kind of bailiffs), whom he takes for witnesses, he asks the prisoner, whether he confesses what he is charged with by the witnesses; he writes down his answer, and brings it back to the council, which is satisfied with such a form, and which, upon the evidence of those sergeants, orders the torture, if the prisoner persists to deny, or passes the condemnation if he confesses; insomuch, that the confession of the prisoner is always necessary, even when the most compleat proofs are had

had against him.—According to them, it results from this principle—the necessity of torture. I have no idea of any thing so truly barbarous and absurd, so contrary to universal reason and humanity.

As to manufactures, it is impossible to doubt that this canton is adapted to them:—falls of water, in plenty, fit for the motions of machines; a great abundance of productions, and consequently the possibility of a larger population, and the facility of supplying it, are advantages which ought to call forth this canton to labour and manufactures; but it has none.

Lucerne is admirably situated for trading; yet there is no trade, of any kind, carried on by its citizens.—Its lake is the channel by which the productions of the neighbouring cantons are carried to France, Germany, and Holland; it is also one of the communications of Italy; its navigation belongs, almost exclusively, to this town, and yet foreign merchants engross the profits:—Lucerne does nothing.

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## A FARMING TOUR IN GERMANY

*By the Rev. Mr. Martyn, Professor of Botany,  
in the University of Cambridge.*

Park-Prospect, Westminster,  
March 29, 1788.

Dear S I R,

**I**T is with great justice that you complain of the total want of information, with respect to the

the important subject of agriculture, in all books of travels. As a traveller, I plead guilty; and I know of one only, besides yourself, who must not; and that is our excellent and learned friend Dr. Symonds. The only apology I can make for us, is that we set out without a competent knowledge of the subject, and seldom reside long enough in the country to acquire sufficient information. For my own part, during a year which I spent in Italy, I was chiefly pent in populous cities, and, in the country, attended principally to its volcanic history. In Swisserland, I resided longer, and bestowed a few thoughts upon the agriculture of that interesting country; but though I saw much to approve, in the industry of the inhabitants, cultivating by hand, every piece of land that admitted cultivation, and was inaccessible to the plough; yet I found little to inform an English husbandman. I visited Klijog, who has been much celebrated for his improvements, and has been dignified with the title of the *Rural Socrates*.—He could speak only German, and that was almost the only language which I could not talk, in some degree; so that our conversation was held by means of an interpreter. Under this disadvantage, I found him spirited and sensible, but learnt only, that his improvements were made chiefly by a variety of manure, and particularly, by the mixture of different earths. The soil of that part of his farm  
which

which I saw, was stubborn and ungrateful; a mixture of clay and gravel. He shewed me a pit, from which he dug sand, to lay on his lands:—as, on examination, I found this to be perfectly barren, the only use of it must have been, to loosen the texture of his stubborn soil.

The only part of my notes that falls in with your most useful design, is the journal of my hasty return from Italy, through the Tyrol and Germany, which I here subjoin; heartily wishing that it was more to your purpose, and my reputation:—Such as it is, however, I am unwilling to withhold it; being,

Dear Sir,

Your most sincere well-wisher,

And very humble Servant,

THOMAS MARTYN.

*Journal of a Return from Italy, through the Tyrol, and Germany.*

July 6.—FROM Padua to Vicenza. The country flat. The crops—corn, maize, hay. The harvest quite finished.

July 8.—Vicenza to Verona. Crops—corn, mayz, clover, lucerne, grass, hemp. In the torrents, near Montibello, a mixture of calcareous and volcanic rolled pebbles.—Abundance of silk made and manufactured at both these places. A  
good



good mulberry-tree yields three sacks of leaves, and is worth from three to six livres; that is, from fifteen-pence to two shillings, for the season.

July 12.—From Verona. Country flat, and well cultivated. Crops—vines, mulberries, corn, maize, and sorghum. The corn got in. Hedges of paliurus or Christ's-thorn. Walls of grانيتello, and other volcanic stones: towards Volarni, between rocks of red marble. Between Volarni and Bery, abundance of sumach. To Ala. Narrow vallies, with the river Adige. Mulberries, and tobacco. Pass Monte Baldo, once famous for its rare plants;—now naked rocks.

To Roveredo, the valley opens; the country rude and wild, with, here and there, cultivation of vines, mulberries, and maize. The mountains strangely tossed about; enormous blocks of limestone scattered thick over the country, and lying in all directions. The road to Trentstony, by the river Adige, in narrow vallies, between limestone mountains.

July 13.—To St. Michael, in narrow vallies. Mulberries, vines, maize, and tobacco. Meadows well watered. The walls and road, both made of rolled granite pebbles; and the torrent full of them.

Hence to Egna or Nairmach. Much low-land and marsh.

To



To Brantzol. The valley wide, with some pleasant views. Blocks of red porphyry for posts, on the road.—The road itself made with the same material. Pasture, with little cultivation.

In the way to Bolzano, porphyry mountains, and angular blocks of it. The valley opens, and exhibits pleasant points of view: woods, fine pastures, mulberries, vines. The corn here, not carried, as all hitherto had been, and even threshed on the ground, in the open air. Situation of Bolzano, charming; in a little plain, surrounded by high mountains, with plenty of water.

July 14.—To Teutschchen. Narrow vallies by the torrent; gentle risings and fallings:—a little corn uncut:—mountains of black porphyry.

To Colman. The vallies extremely narrow:—black porphyry hills, with red and green granite. The Schist mountains begin half an hour before you arrive at Colman. Abundance of Hungarian sheep, with straight, spiral horns. Hence to Brixen. Pleasant points of view, cultivation, and woods:—the corn cutting.

July 15.—To Mittewald. Woods of birch and larch:—the corn cutting:—the road, through narrow vallies, sometimes opening, by a torrent. The ascent of the Alps is trifling, till you arrive at Colman.

To Stertzigen. Woods, granite, and then schist:—corn; even rie uncut. Narrow vallies,  
by

by a torrent: at length the valley opens, with fine pastures and meadows.

July 16.—A gentle ascent, and fine road up Mount Brenner, which is composed of schist.—A branch of the Adige, and another of the Inn, (two rivers which run contrary ways), rise here, very near each other.

The descent to Stainach, gentle. Trees—spruce-firs and larches. Views, picturesque:—Air, cold:—Corn, green;—grass cut for hay.

To Sconberg. The road along the sides of the mountains:—the country, fine, with cultivation.—The corn uncut.

To Inspruck. The mountains, schist, with rolled pebbles, gravel, and sand. Corn, partly cut.

July 18.—To Dorsternback. Pastures, oats, and maize; wheat, cut. Woods of spruce, and Scotch firs, with some larches. High, calcareous mountains.

To Obermiemingen. Pastures, maize; corn, cut. Fir, and larch woods. Calcareous mountains of black, and grey hornstone. Fine meadows, and pleasant views. Woods of firs, and larches.

To Nazareth: where I observed the first potatoes. Snow on the tops of all the mountains, hitherto.

July 19.—A rude, narrow valley, with a torrent, and little cultivation. Corn, flax, potatoes,

in small quantities. Firs, larches, juniper. Rye, yet green. Hillocks, covered with trees, dropped here and there, in the valley. Lakes, of a bright green colour:—roaring torrents, and a wild, romantic country. Ascend for an hour and quarter, incessantly:—come to Rhododendron; Cacalia, and other genuine Alpine plants. Rocks of black, and grey horn-flints. A long, gentle descent. The valley opens; with hillocks, as above. Flax, potatoes; wheat, not yet in ear:—rye and barley, green. Large meadows, to Lermes.

Hence to Reita. Beans, potatoes, green corn. The valley soon contracts. Flax and pastures. Woods of spruce firs. Hay, in cocks, fopped with rain. The valley opens again. Mountains of horn-flints. Pass a narrow valley, and a fortification, into a wide valley, with corn, yet very green, and large pastures.

July 20.—Green corn, flax, and potatoes. Large pastures. Woods of Scotch, and spruce firs, with juniper. By a steep descent, and narrow pass, fortified, to a wide plain, with meadows, and some corn, yet green. The mountains, calcareous, and visibly lower. By a wild country, and torrent's side, to Fueßan.—Here end the Alps. Rye, in flower; other corn yet green. Fine crops of corn and flax, with pastures and scattered firs. Gentle risings and fallings. Open country, with corn. Large, open pastures, with spruce firs, to Saumaester.

To

To Bruck. The country and crops, the same. A large heath. Woods of fir, both spruce and silver.

July 21.—Country the same;—then open. Fir-woods, and scattered firs:—with mowing grass. Towards Diffen. Flat, open corn-fields:—the rye almost ripe.

From Diffen, over wide, flat pastures, to a causeway, planted with trees, all the way to Augibourg.—A dead flat of fine turf.

I observed maize, or Turkey-wheat, no farther than Nazareith; so that potatoes begin where this ends.

July 24.—To Sufmarshausen. The country is first flat:—the soil light and sandy. Rye cut, and wheat yellow. After an hour, the ground well varied with corn, fir-woods, and villages. In an hour and three-quarters, fir-woods, with birch, oak, &c. The soil, gravel. Open again into corn-fields, with good crops of rye, oats, and barley:—a little flax and hops. In two hours and three-quarters, little hamlets, with woods, and corn-fields; and meadows in the bottoms.

To Gunzburg. In the woods, fewer firs; more oaks, birch, poplar, and alder. In general, more woods, and less corn. After an hour, a village. Horses, with some bullocks used for draught. Wheel-ploughs, with small iron wheels. In an hour and three-quarters, open corn-fields, and

another village. An open plain, with corn. Rye cut.

To Ulm. An open, corn country. Flax, hops;—rye reaping. In half-an-hour, a village, where they burn turf. Through a little wood, to open fields of corn, and the side of the Danube. In an hour, another village. Open corn-fields, with flax. A field of rye carried. The soil gravelly. Large meadows, towards the river. Reaping mascelin, or wheat and rye mixed. Arrive by a plain of corn, at Ulm.

July 25.—A long ascent from Ulm. Corn-fields. Ground unequal, of white, grey, and cinareous limestone. Woods at a distance. Little rye cut; all other corn standing, as far as Weftersetten. Up a hill, through a little wood, to corn-fields. Long ascent and descent: In an hour, beech woods, with *red deer feeding in the corn-fields*; and then a village. A forest, and limestone-rocks; with corn in the valley. No corn cut. Steep descent down a narrow valley, between limestone-hills, covered with beech woods. Up again, by a narrow vale of fine meadows, well watered, to Geisslingen.

By wider valleys, with corn and woods, to a village. In half-an hour, another villiage, very busy with a thronged fair. Narrow valley, with orchards, meadows, and corn; beech woods on the hills; a pretty rivulet; the country charming.

A lit-



A little rye cut. Two other villages. A little rye reaped, and some carried. Flat country, with pastures, to another village. Corn, potatoes, cabbages, kidney-beans: the road planted with fruit-trees: rye cut: clover. Open fields. Cross a small river, to Goeppingen.

Pleasant, open, uneven corn country, with good crops. Some rye carried. By a river, pastures, and little woods; with fruit-trees by the road. In half-an-hour, a village. little hemp, meadows: gardens: a little maize: good corn: clover. Again, beautiful views of the river; woods, scattered trees, pastures, and corn. Some inclosures. A village,—and, in an hour-and-half, another. By the river, all the way. Abundance of willows: some orchards, and inclosures: corn, and pastures: a wood: orchards and inclosures, to Blockingen.

Vineyards, orchards, maize, corn. Vines cover the limestone-hills on the right. Coast the river. Great orchards: flat meadows: maize. Woods to the left. Vineyards and corn to the right. In half-an-hour, a village. Potatoes, hemp; much maize, vines, pastures, woods, oats, beans, wheat, rye, lentils, pompions, hemp. A hamlet. In an hour, pass through a fortified town. Vines, corn, maize potatoes, wheat, barley, oats.—Orchards, pastures, woods. The river close on the right. Pass between this, and a hill covered with vines.

Straight road, planted with fruit-trees. Pastures, orchards, and crops as before. Through a village. Meadows, with willows. Stutgard, in a bottom, surrounded by hills, covered with vines.

July 27. Vines, corn, maize, potatoes, pastures: rye cutting. The road planted with fruit-trees. Open corn-fields, and vineyards. A wood. Inclosures of vines and corn. Wide corn-fields. In two hours, a village. Vineyards inclosed with walls. Corn: rye cut; lucerne, potatoes. Open corn-fields; with much rye cut. A town, on the right. On the left, a wood of oak, &c. to Entzweingen.

Vines, pastures, corn. A town. Between the river and vineyards. A long ascent between corn-fields, and some vineyards. Rye cut: maize, potatoes, hemp, clover: gardens, orchards. In an hour, a village. Open corn-fields: woods on the right. Between woods, to open fields. Rye cut, and some carried. In an hour and three-quarters, another village. Open corn-fields. Woods on the left. Through a sandy forest, to open fields, and Knittlangen.

Sand: up-hill: open fields. Clover, hemp: carrying rye; and ploughing, before the corn is off, with one pair of oxen. Lucerne, potatoes, maize, poppies, orchards. A town. Open fields. Hemp, poppies, potatoes, clover, maize, lucerne. A village. Rye carrying. In an hour, another village. Clover, hemp, poppies, potatoes, vines, corn:

corn: rye carrying. Ploughing. Trees, woods.

A town. Vines, and crops as above.

Arrive at Bruchsal. The road planted with fruit-trees.

To Waghaufel. The country flat. Pastures. The road planted with walnut-trees. Corn, potatoes, maize, hemp, pompions, poppies, clover, pease, lucerne. A village. Rye mostly carried. Pass through woods of oak and beech. Rye, off; and land sowing. In one hour, another village. Through another wood. Corn-fields cleared, and ploughing. In an hour-and-half, a village. Open fields. Maize, sorghum, potatoes, kidney-beans. Pastures and woods on the right. Country flat, and soil sandy. By a wood. Tobacco, and other crops, as before. Woods of beech and oak. Soil sandy. Large ledgy meadows, on the left. Through woods of Scotch firs, oak, and beech, to an open field, cleared and sown. In through a village. Open fields. Maize, potatoes, kidney-beans, hemp, tobacco, sorghum. Leave Speyer or Spires, on the left. Open fields cleared. In an hour-and-half, a village. Open, flat, sandy fields. Barley *reaping*: sorghum, tobacco, potatoes: rye carried, shocked, or yet uncut.

Through a wood of Scotch firs. Open fields, as before. Fir woods again—then of oak and beech. A park for deer. Open field. The road planted with horse-chestnuts and poplars. Much

tobacco and clover. In two hours and a quarter, pass Schwetzingen. The road planted with walnuts and poplars. Open fields. Tobacco, clover: corn all cut, except barley: maize, potatoes. Superb, straight, gravelled road, planted with limes and poplars. Oats standing: potatoes, beets: barley and rye cut. Rye, oats, maize, tobacco, beets: rye standing, cutting, cut, and carrying. Arrive at Manheim.

August 1.—Pass the Rhine, over a bridge of boats. Low, flat ground, with corn and tobacco. The corn mostly carried: oats reaping. Clover, lucerne, maize, hemp. The road planted with willows and poplars. Beets; oats standing. The ground ploughing, and some sowed. Potatoes, rye,—all carried: oats reaping and mowing. The road planted with poplars. Wheat mostly cut; barley cut: rye reaping. Hops, mulberries, walnuts. In three-quarters of an hour, a town. The road planted with walnut, and poplar trees. Sorghum. In an hour-and-half, a market-town. Flat, open fields. Maize, potatoes, sorghum. The corn mostly off. Road planted with walnuts. Soil sandy. Vines, corn: rye off; wheat cut, and cutting: oats standing.

Pass through the forlorn City of Worms. Country flat. Vines in rows, with crops between, as before. Open corn-fields; with clover, lucerne, &c. as before. Soil sandy. A great field  
of



of turneps. Meadows, and the Rhine, on the right. Open corn-fields: the corn mostly standing: oats green; sorghum, turneps. Some rye still standing. Walnut, and other fruit-trees. Rye carried. Kidney-beans, poppies, sorghum. Abundance of walnut, and other fruit-trees: some white mulberries. Crops, as before. Oats standing: potatoes, vines, hemp, tobacco. In two hours and ten minutes, a town. Not a house between Worms and this place. Vines, hemp, potatoes, beets, sorghum, cabbages, clover, lucerne. Corn mostly got in. Gentle ascent and descent on the side of a sandy hill, covered with vines, to Oppenheim.

The Rhine closes on the right: A hill of vines on the left. The road planted with white mulberry-trees. Red hills. An island; with corn, wood, pastures, and vines. In an hour, pass a village, Meadows, orchards. Open fields. In an hour and half, another village. Vines and corn. In an-hour-and-three-quarters, a town.—Between large meadows and vineyards. In two hours, come to the Rhine again. A town. Up-hill. Between vineyards, to Mentz. The city built, chiefly, of red sand-stone: the pavement lava.

August 2.—Embarked on the Rhine, in a large, commodious, covered boat, with three rooms in it, for Cologne. Hills covered with woods, on each



each side. At two leagues, a village. Vines and corn, to the water's edge. Left bank flat; with pastures and trees. Villages very frequent. Bold shores on both sides; with castles and villages. The narrow pass of Bingenloch: The Mouse-tower: and to Baccarach. Mountains of fine black slate. Both banks very steep, and vines in every spot where it is possible to put them. Arrive at Coblentz.

August 3.—The country opens, and the shores are flat. Corn and pastures. Hills at a distance, with wood. Approach the hills on the right, covered with vines. On the left, flat; with corn. Andernach. Hills on both sides. Vines on the right: Woods on the left. Pass immense rafts of timber, with houses built on them. Lintz. Vines on both sides. Unkell, and volcanic hills. High rocks of lava and tufa. Flat shore on the left, and high, volcanic points, on the right. Flat shore on both sides, with vineyards and meadows, to Bonn.

Basaltine columns at the gate; many scattered about the city, and stuck into the walls. The pavement lava.

August 4.—Flat shores, on both sides, to Cologne. Built of brick. Ill-paved with lava. Basalt posts every where. The first place where coals were seen, since we left England.

August 5.—Quitted the river. Road straight, and paved;—planted with elms. Country flat.  
Crops

Crops—kidney-beans, tobacco, cabbages, beans, clover; some rye, wheat, and oats standing: potatoes. Large open fields, cleared. Soil sandy. A village of clay cottages, thatched. Wide, open fields, cleared, and the stubbles partly ploughed. Windmills, of which I had hitherto seen none on the Continent. Another village. Heavy sand. Beech, and oak woods. Oats green: hops. A third village. Potatoes, flax, clover, pease, corn, to Berchen.

Open corn-fields: buck-wheat in flower. Cross a common; with woods to the left. Woods of oak and beech, on both sides, to Juliers.

Open, sandy fields. Beans, oats, buck-wheat, pease; barley standing; rye in sheaves; flax, clover. Rye carried, and the stubble ploughed. In two hours, inclosures, and a village. Paved road. Down hill, to Aix-la-Chapelle.

August 6.—Ground unequal, and country pleasant. Cultivation mixed with woods. Narrow lanes: deep sand, with horizontal beds of flints and shells. Through woods, to a paved road. Inclosures, chiefly pastures. Some potatoes; oats green: rye uncut. Abundance of thrift, (*Statice armeria*). Mount a hill. Chalk mixed with sand. In three hours, a village. Beautiful country, and extensive prospects. Wheat standing; beans green; fine clover; ash trees;—all inclosed. Fine hedges of white-thorn, hazel, &c.

Arrive

Arrive at Spa, situated in a hole, furrounded by flaty rocks. The country wild and romantic.

August 14.—To Liege. Inclosures, with corn standing. Limestone quarries, both for burning and building. Up to a heath. In two hours, a village, built of stone, covered with slate or thatch. The road paved with breccia or pudding-stone. A heath; and then corn-fields. A long descent to Liege, which is black from the use of coals, and the great manufactories of iron.

August 16.—Up a long hill to open fields. Corn mostly standing: rye carried. Soil sandy. Road paved, and planted to Horel. Open fields, cleared of wheat and rye: oats cut.

To St. Frond. Open fields, and inclosed pastures. Road planted with willows. Much clover: wheat, and rye-stubble: hemp. Country flat, with open fields. Soil sandy. Buildings, brick or clay, with thatch. Many hops. Road planted with poplars.

Enter the territories of the Emperor.

To Tirlemont. The road planted with elms. Some hemp and oats cut: potatoes: wheat and rye gone: buck-wheat in flower: clover. Woods. Oats reaped: turneps. Arrive at Louvain.

August 17.—Road straight, paved: planted with elms, limes, and willows. Open fields. Oats cutting: clover, potatoes, pease, buck-wheat, turneps, beans: wheat and rye cleared. Arrive at Brussels.

August

August 29.—To Ghent. Country flat, and well planted with elms, poplars, &c. The road paved, and bordered with trees of the same sorts. Crops—cole-feed, potatoes, clover; besides corn: oats cutting; buck-wheat cut: beans cut and bound. From an open country to inclosures; and in three-quarters of an hour to a village. In an hour-and-quarter, to a hamlet, beyond which, we found hops, and oats cut.

In an hour-and-half, reach Ashe. Crops—turneps; beans cut, clover, oats cutting; hops, potatoes, hemp cut. Meadows towards Aloft. Crops—turneps, cole-feed, potatoes, oats shocked, beets, hemp cut, tobacco, oats uncut, beans cut and bound; clover, buck-wheat, beans uncut, oats cut. Trees—beech, poplar, willow, alder. Plantations of oak.

To Quadregt, in two hours. The road planted with beech. Oats and beans shocked: clover, buck-wheat. Oak, ash, poplar, willow, elm, by the road side. Potatoes, oats uncut. Plantations of oak and alder. To Ghent, in one hour.

August 30.—By the canal, to Bruges—and on the 31st. to Ostend.

September 1.—Sailed for Margate.

P. S. You have the above, just as I wrote it on the journey, without any embellishment; about which, I presume, you are not solicitous.

The

The account which you have received from the Earl of Fife, is very interesting; particularly to me, who am now deeply engaged in an improved edition of a Botanical and Gardening Dictionary, in which, plantations, woods and timber, will make considerable articles. These might be rendered much more perfect, if noblemen and gentlemen who plant, or otherwise improve their estates, would communicate to you, such accounts, together with the mode of planting, which they have found to be most successful.

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## ON SPINNING IN LUSATIA.

*By Dr. Anton.*

Gortliz, Feb. 25, 1788.

SIR,

I RECEIVED your favour, and shall, with the greatest pleasure, endeavour to answer your queries; but, I much fear the difficulty, on account of translating our technical terms into yours.

I. Our women spinners of wool, with the Dutch wheel, (a great spinning-wheel introduced a few years since), if they spin *kette*, (chain-thread), earn, per diem, 4 groschen, 6 pfennings, to 5 groschen, (about 6d. English). They spin 1  $\frac{1}{2}$  strahn,



*strahn*, which is 3 *dekel*; 1 *dekel* is 11 *gebund*; and 1 *gebund* 40 *faden* or threads: The thread is 3 *ellen* or yards long\*.

The weight of 1  $\frac{1}{2}$  *strahn* is, on an average, 1  $\frac{3}{4}$  lb. (a lb. 32 *lotb*). In this spinning they strike the yarn, and spin fine.

II. With the same wheel, *eintrag* or the thread broad, they earn 5 *gros.* and spin 4 *strahn* to 8 *dekel*; the weight 1  $\frac{1}{2}$  lb. this is spun loose, and not so fine as No. I.; but they strike the yarn. The threads are not computed, but only weighed.

III. With the old German wheel, (a small machine), they earn 3 *grosch.* 6 *pfem* a-day, for 1  $\frac{1}{2}$  lb. not counted, but weighed. Two *lotb* per 1  $\frac{1}{2}$  lb. of wool loss, is allowed to the spinners by the manufacturer.

With the German wheel they formerly earned 2 *grosch.* at present 2 *gr.* 6 *pf.*

Price of a Dutch wheel 1 *thالر*: a germanone 16 *grosch.* Of the *stricks* 1 *thالر*.

Flax was formerly spun with the spindle, but now with the wheel.

\* Forty threads, at 3 yards, are 120 yards in a *gebund*; 1 *dekel* is 11 *gebund*, or 1320 yards; consequently 1  $\frac{1}{2}$  *strahn* is 3960 yards; but as the yard is unknown, we cannot reason upon it. I find in *Pandeton's Métrologie*, that the aune of Dresden is 0,4757;—the yard of London being 0,7697: from which I conclude the Lusatian ell is different.

If a spinning woman that works wool, earning 4 *grofch.* or 1 *thالر.* a-week, or about 50 *thalrs* a-year, she will find the following necessary to her:

	<i>grofch. pfen.</i>			
Bread, per week	-	-	-	3 0
Potatoes	-	-	-	2 0
Butter	-	-	-	2 0
Milk	-	-	-	0 9
Flesh, for funday	-	-	-	2 0
Coffee and fugar	-	-	-	4 6
				<hr/>
Per week	-	-	-	14 6
				<hr/>

Or,

Per annum	-	-	-	30 21
Ditto, falt	-	-	-	0 12
Wood-fuel	-	-	-	3 0
Houfe-rent	-	-	-	4 0
Taxes	-	-	-	0 8
Oil for light	-	-	-	2 7
				<hr/>
				41 0†
				<hr/>

† These particulars are very curious :—She earns, by her spinning, 3s. 7d. a-week ; upon which I may remark, that the idea common in England, of spinning being cheaper abroad than here, is a mere vulgar error. Her bread is 4½d. a-week ; reckoning the *grofch.* at 1 ¼ which it is not correctly. The bill of fare much exceeds that of an English spinner :—potatoes, milk, and flesh, are good articles, and coffee better than tea. She has about thirty-one shillings a-year left for cloathes.

All

All the poor in the cities, drink coffee, with sugar and milk, instead of your tea. The meat used is all pork, with four crant.

I have Spanish rams from our Sovereign, the Elector of Saxony. I have sold ram-lambs from five to seven *thaler*. I inclose you a sample of the best Lusatian wool, from Lauschké, between Budissin and Gortlitz; the stone of 22 lb. was sold for 14 *thaler*. or about 2l. 2s. English.

The newest discoveries in Germany, in regard to the *brant* in wheat, are, that the smut arises from an insect: to which wheat of two years old, or that which is threshed immediately on coming into the barn, and afterwards often stirred, is not at all liable. Liming is not sufficient: I have tried it, and my wheat had not the open, but the close *brant* †.

I am, &c. &c.

ANTON.

## ON THE USE OF GYPSUM AS A MANURE.

By Samuel Powel, Esq. President of the Philadelphia Society for promoting Agriculture.

(EXTRACT.)

I.

FROM the facility of breaking up new lands, in this country, whenever the fertility of those

† The open brant is, I suppose, what we, in England, call the *brand-burnt-wheat*;—the close, is what we term the *smut*.

A. Y.

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Y

in

in immediate culture was exhausted, have arisen great defects in our husbandry, and a general complaint of worn-out fields, whose culture will scarcely repay the husbandman's labour. To remedy these evils, and point out a mode of cultivating the earth, at once profitable and practicable, are objects of the last importance to the community; and to attain these valuable ends, is the great object of this Society. Happily for them, your useful labours have anticipated many enquiries on that subject, and the rotation of crops, recommended by you, will, they doubt not, in the course of a few years, remove the too well founded complaints of worn-out fields.

Our attention has, of late, been much turned to plaister of Paris as a manure, from which we promise ourselves very great advantages. Repeated trials have convinced our husbandmen of its efficacy on arable and grass grounds—Of its success on the latter, I will now relate some proofs:

On a wheat stubble, the crop of grain from which was scarce worth reaping, plaister of Paris was sown, without any previous culture, in October 1786, on a rainy day. In the month of June 1787, the surface of the ground was covered with a thick mat of white clover, clean and even, from six to eight inches in height. There was no seed, of any kind, sown, as the farmer assured us. This piece of grass I viewed in company with General Washington. The soil was a light one, and in the condition

condition of what we call worn-out land :—the situation, the slope of a hill, which terminated in a bottom, somewhat springy, covered with grafs.—Part of the slope, adjoining the piece of white clover, was in grafs before the manuring, and was also sown with the plaister, at the rate of five bushels to the acre, and exhibited a very fine appearance of white and red clover, mixed with what we call spear or pointed grafs. Some parts of the bottom, which were wet, and covered with coarse grafs, though sown with the plaister at the same time with the other ground, did not appear to be in the least improved by it.

I have before observed that the preceding effect was produced by the plaister on a light soil. The farmer to whom it belonged assured us that he had sown it with equal, if not better, success on a clayey soil, at some distance from the farm whereon he now resides. I have known him several years, and believe him to be a man of veracity.

In the following communication to the Society, from a gentleman farmer of undoubted character, the effects of the plaister are further exemplified:

“ In the month of March last, as soon as the snow was off, and the ground sufficiently settled to bear walking on the surface, I spread eight bushels of the plaister of Paris upon two and an half acres of wheat stubble-ground, which had been sowed the Spring before, in common with the rest of the

Y 2

field,



field, with about two pounds of red clover-seed to the acre, for pasture. This spot yielded, about the middle of June last, five tons of hay. A small piece of ground, within the inclosure, and of similar quality, having been left unsprayed with the plaster, afforded me an opportunity of distinguishing the effects of the manure. For, from the produce of the latter, there was good reason to judge that my piece of clover, without the assistance of the plaster, might have yielded one and an half tons of hay; so that the eight bushels of that pulverized stone, which cost forty shillings, must have occasioned an increase of three and an half tons upon two and an half acres of ground, exclusive of which it is now covered, to appearance, with between two and three tons fit for the scythe. This soil had been in course of tillage about fifty years, and never had any dung or other manure upon it, but, yet, was what might be called good wheat land. As the effects of the plaster were thus powerful upon such kind of ground, there is good reason to conclude they would be much greater upon a soil previously manured."

I have taken the liberty of intruding so long upon your time with the above accounts as I do not remember to have seen any notice of this manure in your works; nor do I recollect any mention made of its being used in the French or English agriculture. If I am mistaken, in these points,  
you

you will excuse my prolixity, which must be attributed, solely, to a desire of communicating useful information. One word more shall conclude this subject :

The plaister of Paris, after being broken into small pieces by the hammer, is reduced to powder in a mill, (it is ground as wheat is, and in the same mill), and, in this state, is spread upon the ground in a calm day. If the weather is misty it will be spread to more advantage than in dry weather, as no part of it will be blown away. The test of its goodness is obtained by putting the powder *alone* into an iron pot over the fire ; when it boils, which it will do like water, it will admit of a straw being thrust to the bottom of the vessel without resistance. We do not boil more than is sufficient for an assay of its goodness. Its effects upon arable land are said to be very great, but as I am not, at present, furnished with sufficient proofs of the fact, though I believe them to be indubitable, I will not say more on this subject until I am more fully informed.

Having thus fulfilled the commands of the Society, which will always be happy to receive and communicate any information on the subject of their institution, I subscribe myself in their name,

Sir,

Your most obedient humble Servant,

Philadelphia,  
Sept. 10, 1787.

SAMUEL POWELL.

Y 3

We

We have two kinds of plaister of Paris imported here. From France, and from Nova-Scotia. The former is, at present, esteemed to be the best. It is, already, become an object of manufacture and commerce. We are indebted to some German farmers for its introduction into this country. An intelligent person informs me that, upon opening a closet, where he had kept some of it, in powder, he was sensible of a very disagreeable odour arising from it. This he considers as one test of its goodness, as the parcel proved highly successful\*.

## II.

THE plaister of Paris, as a manure, still maintains its ground, and seems, if possible, to increase in reputation. It has been used, very liberally, by many farmers, last autumn, and, as far as I can learn, promises to answer their expectations.

\* The whole of this account of Gypsum is exceedingly curious, and certainly becomes an object highly deserving the attention of British farmers. Many years ago the London Society procured some from Switzerland, having been informed of the success with which it had been used; it was distributed to the members that wished to try it. What the general success was I do not recollect; with me, on a poor gravel, it had no kind of effect. I was not at all surprized, not conceiving how a small portion of calcareous earth by being united with the vitriolic acid should be improved as a manure. But in the above very satisfactory account by Mr. Powel, there evidently appears to be very different sorts, and to know and acquire the right sort is an object of considerable consequence. I have written to France upon the subject, and hope ere long to procure the same sort that is sent to America.

A. Y.

A proper

A proper rotation of crops appears, to the Society, so essential to good husbandry, that a premium has been offered for the best experiment made of a course of crops, either large or small, or not less than four acres, agreeable to the principles of the English mode of farming.

The practice in the vicinity of Philadelphia, where our agriculture is in its best state, from the facility of procuring manure from the city, is to raise potatoes for one or two years; to these barley with clover have immediately succeeded. So far we have stumbled upon the rotation system for twenty or thirty years past; but, in general, instead of completing the system, by ploughing the clover ley for wheat, the object has been to keep up the grass by repeated dressings of dung, though, in many instances, wheat has followed clover in two or three years, and the system began again. This, I think, is, very nearly, our system near the city, but a very different mode prevails on those farms which lie beyond the reach of the city manure.— On these the husbandry is bad; the general practice there being to plough and sow with grain till the land is exhausted, and then to clear the wood from a new piece of ground, and repeat the same ruinous process \*. Time and the increasing population of the

\* The improvement in this case is obvious; to crop more tenderly and sow grass seeds with the last. The most profitable hus-



the country will necessarily check these evils ; but the endeavours of the Society, it is to be hoped, will, without waiting for this inevitable though tardy result of natural causes, induce our husbandmen to adopt a more œconomical as well as a more profitable system.

The attention of the Society is, at present, turned to a machine, invented by Mr. Winlaw, for separating the grain from the ears, of which there is one in Maryland. Should it be found, upon trial, to answer, it will be a real acquisition to this country where the high price of labour greatly enhances the expence of the farmer. You have, doubtless, heard how far it answers in practice, and you will oblige the Society by informing them whether it corresponds to the professions of its inventor.

Agreeably to your request I have added hereto what is judged to be nearly the average price of the following articles, in which I have not relied solely upon my own judgment, but have collected the opinions of persons more conversant in the value :

Wheat, 6s. to 6s. 4d. per bushel.

Rye, 3s. 9d. to 4s.

bandry that is in the world, and compared with which, sugar, rice, or indigo are nothing, is that of spreading by degrees over a waste tract, breaking up a new field every year, and also laying down one every year to grass ; turning the waste as you advance by tillage into meadow and pasture. Tolerably managed it will any where yield from 30 to 40 per cent. on the capital employed. A. Y.

Indian



Indian corn, 2s. 6d.

Oats, 1s. 8d.

Barley, 4s.

Clover hay, per ton, 4l. 10s.

Beef, per cwt. 1l. 5s.

Pork, ditto, 1l. 7s. 6d.

A good working horse, 20l.

A pair of good working oxen, 9 cwt. each, 20l. to 24l.

A milch cow and calf, 5l. to 6l.

Store sheep, by the flock\*, 10l. to 15l.

Wool

Dressed flax

Bricks, per thousand, 22s. 6d.

Stone lime, per bushel, 11d. to 12d.

Cultivated farms of good land, in the old counties, not within twenty miles of Philadelphia, extremely various; the average at random, perhaps, 5l. per acre.

The par of Exchange with Great-Britain, is  $166 \frac{2}{3}$  per cent.

An English guinea passes current at 35s.

In regard to publishing what I have written to you on Gypsum, you have my full permission to make what use of it you please.

The Summary of the Laws, Constitutions, and Premiums offered by the Society, is in the press; as soon as published, I shall do myself the honour

\* These prices are most of them high enough to encourage industry, and indicate no want of a market. A. Y.

of sending you a copy. In the name and by order of the Society, I have the honour to subscribe myself,

Sir,

Your most obedient humble Servant,

SAMUEL POWEL,\*

Philadelphia, May 12, 1787.

President.

## ON THE CULTURE OF POTATOES, AND THEIR USE IN FATTENING CATTLE.

*By the Rev. Mr. Abdy Abdy.*

**I**N the winter of 1786, I felled an acre of woodland of 18 years growth, which, after deducting all expences, paid 3l. 10s. about 4s. per annum. I determined to stub it up in the spring, and plant it with potatoes. The produce of the acre was 563 bushels. The expence as follows:

	£.	s.	d.
Rent of an acre of land - - -	0	4	0
Tithe of ditto - - - - -	0	3	0
Digging 160 square rod, at 6d. -	4	0	0
Twenty waggon loads of dung, at 4s. } per load - - - - -	4	0	0

\* I am much obliged to the Society and Mr. Powel for these valuable communications; and a continuance of the correspondence will add not a little to the satisfaction of my readers. A. Y.

Drawing

# A G R I C U L T U R E. 325

	£.	s.	d.
Drawing ditto, five days, with four } horses, at 12s. - - - }	3	0	0
Ten bushels of potatoes for sets, at 2s.	1	0	0
Cutting ditto - - - -	0	2	0
Planting ditto, two men three days -	0	8	0
First hand-hoeing - - - -	0	5	0
Second ditto - - - -	0	3	6
Taking up, at 3d. per rod - -	2	0	0
Carting home three loads, of 80 } bushels, per day - - }	1	8	0
	<hr/>		
	£.	16	13 6
	<hr/>		

On the 5th of May I bought four Welch runts, at 5l. per head; kept them 19 weeks on clover, at 1s. 3d. per head, per week. I then put them into some aftermath, which my milch cows had the first bite of, where they staid seven weeks; the value of this keep was 1s. per week. I might then have sold them for 7l.

They were then stalled up, and fed with potatoes and the best old hay. They eat, each of them, a bushel of potatoes and a quarter of a truss of hay, per day; the hay was worth 1s. 4d. per truss. A man, at 7s. per week, and a workhouse boy, at 4d. per day, attended these four stalled runts, five heifers that were stalled upon grains and barley-meal, six milch cows, six Scots, and three horses in the straw-yard, and my fatting pigs, so that I reckon, supposing

supposing their dung of some value in this account the attendance upon these runts, to be worth one half-penny per day, they were up 84 days, and I then sold them for ten guineas each, their increase was 3l. 10s. a head in 84 days, eating potatoes and hay.

	£.	s.	d.
Attendance 84 days - - -	0	3	6
Hay - - - - -	1	8	0
84 bushels of potatoes, at 5½d. -	1	18	6
	<hr/>		
	£.	3	10 0
	<hr/>		

Expenditure to procure 563 bushels of } potatoes - - - - -	16	13	6
563 bushels, at 5½d. - - - - -	13	7	2½
	<hr/>		

Loss - - - - -	£.	3	6 3½
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The potatoes were a good eating sort, and were sold at the time these were taken up, at nine-pence per bushel, had I sold them, instead of feeding these runts with them, the account would have stood as under:

	£.	s.	d.
563 bushels of potatoes, at 9d. -	21	2	3
Expences in producing ditto -	15	5	6
Deducting the carting home, as the buyers fetched them away at their own expence	<hr/>		

Profit - - - - -	£.	5	16 9
------------------	----	---	------

I must trouble you once more with a farming anecdote, it may, perhaps, drive impeachment and  
slave-

slave-trade out of your thoughts, for a few minutes; if it serves to amuse you, I am satisfied, if not, the fire you know is near you.

*Expence of half an acre of potatoes, near my house:*

	£.	s.	d.
Rent - - - - -	0	9	0
Tithe - - - - -	0	1	6
Town charges for this land is rated, the other was not - - - - -	0	1	6
Digging 80 rod, at 6d. full of bushes and stubs of trees - - - - -	2	0	0
Five bushels of sets - - - - -	0	10	0
Cutting and planting - - - - -	0	4	0
Eighteen cart-load of farm-yard dung, at 1s. 6d. per load, the other dung was carried in waggons, and the best dung from Epping being from the common fly horses - - - - -	1	7	0
Carting ditto one day, two carts, four horses, two fillers - - - - -	0	14	8
Digging, at 3d. - - - - -	1	0	0
Carting home - - - - -	0	12	0
	<hr/>		
	£.	6	19 8

About christmas, a Scotch cow, which had had two calves, and sunk in November, was turned into the straw-yard: as it would be a long time before she would be fit for business (as it was a great chance she never might) I determind to sell her, 5l. 5s. was the most money offered for her; and



and the jobber I originally bought her of, advised me, as I had more potatoes than the four bullocks would eat, and my sheep did not like them, and the hogs would be then fattening on pease, to try her with some potatoes: I therefore put her up on the fourth of January, meaning to set as much flesh upon her as I could, before I gave away the meat, which, as warden of Stennard's charity, I am to give to the poor of the parish of Theyden Garren: the 563 bushels in the former account were kept by themselves, and the 320 from this half acre (which is a most wonderful produce) by themselves, as it happened the four bullocks were stalled up in the farm-yard, this cow was necessarily stalled in the cow-house, and therefore had these potatoes given her, which were the handiest to the man who served her; until she was killed, I had hardly observed her, and therefore was astonished to find that she was as fat as any butcher could wish his *prime beef* to be: she weighed 60 stone, 8lb. to the stone, and the way I have disposed of her, is as follows:

	£.	s.	d.	
Sixty stone of beef, at	8	0	0	} You see what they call the fifth quarter comes to 1l. 14s. 2d.
2s. 8d. per stone -				
Fifty lb. of tallow, at 4d.	0	16	8	
Hide - - - -	0	14	0	
Tongue 2s. 6d. heart 1s.	0	3	6	
<hr/>				
	£.	9	14	2

The

She ate much the same hay as the four runts :—a truss in four days, and about a bushel of potatoes per day :—she was up fifty-one days.

I must charge a penny per day, attendance, as the other fattening beasts were gone	-	-	-	-	£.	s.	d.
					0	4	3
Hay 51 days, at 4d.	-	-	-	-	0	17	0
Value of the beast	-	-	-	-	5	5	0
					<hr/>		
					£.	6	6 3
					<hr/>		

			£.	s.	d.	
Sold for	-	-	9	14	2	
Cost (exclusive of potatoes)	-	-	6	6	3	
Fifty-one bushels of potatoes, in whole numbers	<div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;"> <div style="border-top: 1px solid black; border-bottom: 1px solid black; padding: 0 10px;">3   8   0</div> </div> <div style="display: inline-block; vertical-align: middle; font-size: 3em; line-height: 1;">}</div> </div> <div style="display: inline-block; vertical-align: middle;">             exactly 1s. 4d. per bushel.           </div>					

Thus, then, stands the account of these potatoes :

			£.	s.	d.
320 bushels of potatoes, at 1s. 4d. per bushel	-	-	21	6	8
Expenditure of procuring ditto	-	-	6	19	8
			<hr/>		
Profit upon half an acre of potatoes	-	-	14	7	0
			<hr/>		

The great difference between this, and the other account, arises from the dung being, though equally good for the potatoe fibres to run in, of an inferior value.

There

There was no charge for keeping the beast, as in the other account: the carting of dung and of potatoes being so much less, indeed, the carting them home ought not to be charged; for the horses at plough, in the field, brought home, in the evening, what was dug in the day.

As I have, yet, a great many potatoes still remaining, I put up, on the 25th, two small Scots, that I drew from the straw-yard; they were valued, this morning, at 5l. 15s. 6d.—They have cost me, as under:

	£.	s.	d.
Bought at Horlow beast-fair, two Scots, } each - - - - - }	4	4	0
Driving home, each - - - - -	0	1	0
Keep, from the 10th of September to the 25th of February, on vetches, } and in the straw-yard, 24 weeks, } at 9d. per week - - - - - }	0	18	0
	<hr/>		
	£.	5	3 0
	<hr/>		

When I have done with them, you shall, if you give me any encouragement, be troubled with the debtor and creditor account.—They are eating the cheapest potatoes.

THOMAS ABDY ABDY.

*This ingenious gentleman has got into a train of such truly valuable experiments, that I cannot but earnestly hope he will continue his correspondence. If he builds a machine for weighing cattle alive, he will have absolute certainty in his pursuit. I am much obliged by this communication,*

AVERAGE

# A G R I C U L T U R E. 331

## AVERAGE PRICES OF CORN FOR JULY, 1788.

*By the standard Winchester Bushel of 8 Gallons.*

	<i>Wheat.</i>	<i>Barley.</i>	<i>Oats.</i>	<i>Beans.</i>
London,	5 6	2 7	2 1	2 9

### C O U N T I E S      I N L A N D.

Middlesex,	5 9	2 10	2 5	3 2
Surrey,	5 11	3 3	2 4	4 1
Hertford,	5 9	3 0	2 2	3 7
Bedford,	5 6	2 4	2 0	3 1
Cambridge,	5 4	—	1 10	2 6
Huntingdon,	5 4	—	1 9	2 8
Northampton,	5 8	2 6	1 10	2 11
Rutland,	5 8	2 8	2 1	3 2
Leicester,	5 11	2 9	1 10	3 4
Nottingham,	5 10	2 8	2 0	3 2
Derby,	6 4	—	2 2	3 6
Stafford,	5 11	2 10	2 3	4 4
Shropshire,	5 11	2 9	2 1	4 6
Hereford,	5 6	3 2	2 0	3 4
Worcester,	5 11	—	2 3	3 3
Warwick,	5 8	—	1 11	3 4
Gloucester,	5 11	2 9	2 0	3 3
Wiltshire,	5 6	2 10	2 4	3 7
Berks,	5 9	2 11	2 3	3 2
Oxford,	5 10	3 2	2 5	3 5
Bucks,	5 10	2 11	2 1	3 1

### C O U N T I E S   U P O N   T H E   C O A S T.

Essex,	5 4	2 4	2 0	2 11
Suffolk,	5 4	2 4	2 0	2 7
Norfolk,	5 6	2 2	2 0	—
Lincoln,	5 6	2 5	1 10	3 1
York,	5 10	3 0	2 0	3 5
Durham,	5 8	—	2 1	3 11
Northumberland,	5 6	2 7	1 11	3 7
Cumberland,	5 10	3 1	2 1	4 2

## COUNTIES UPON THE COAST.

	<i>Wheat.</i>	<i>Barley.</i>	<i>Oats.</i>	<i>Beans.</i>
Westmoreland,	6 6	3 5	2 0	—
Lancaster,	6 8	—	2 3	3 4
Chester,	6 1	3 4	2 3	—
Monmouth,	6 2	3 2	2 1	—
Somerset,	5 11	2 9	2 3	3 9
Devon,	6 1	2 9	1 9	—
Cornwall,	5 10	3 1	1 8	—
Dorset,	5 6	2 8	2 1	3 8
Hampshire,	5 7	2 10	2 2	3 6
Suffex,	5 6	—	2 2	4 1
Kent,	5 6	2 8	2 3	2 8
Wales,	5 9	3 0	1 8	4 1
General average	5 9	2 9	2 1	3 4

LONDON PRICES OF CORN FOR  
JULY, 1788.

<i>Grain.</i>	<i>Quarters.</i>	<i>Prices.</i>	<i>Aver. per Quar.</i>
		<i>£. s. d.</i>	<i>£. s. d.</i>
Barley,	— 11745 —	13037 13 2	— 1 1 2
Beans,	— 7347 —	8288 18 8	— 1 2 6
Malt,	— 7112 —	12081 10 8	— 1 14 0
Oats,	— 33265 —	27911 10 11	— 0 16 9
Peas	— 1346 —	1719 19 2	— 1 5 7
Rye,	— 770 —	893 4 11	— 1 2 8
Wheat,	— 10426 —	23443 3 6	— 2 4 10
	<u>72011</u>	<u>87366 1 0</u>	

COURSE OF EXCHANGE, FOR  
JULY, 1788.

Amsterdam,	- 38 3	Leghorn,	47½
Hamburg,	- 34 11¼-2½U	Genoa,	44½
Paris,	- - - 28	Venice,	48½
Cadiz,	- - 35½ ¼	Lisbon,	65 <sup>1</sup> / <sub>16</sub>
Madrid,	- - 35½	Dublin,	9½ a 10

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# A G R I C U L T U R E. 333

## AVERAGE PRICES OF CORN FOR AUGUST, 1788.

*By the standard Winchester Bushel of 8 Gallons.*

	<i>Wheat.</i>	<i>Barley.</i>	<i>Oats.</i>	<i>Beans.</i>
London	5 2	2 6	2 0	2 10

### C O U N T I E S    I N L A N D.

Middlesex,	5 7	2 10	2 4	3 2
Surrey,	5 8	3 3	2 4	3 11
Hertford,	5 8	3 0	2 3	3 5
Bedford,	5 6	2 2	2 0	3 4
Cambridge,	4 11	—	1 10	2 7
Huntingdon,	5 1	—	1 9	2 8
Northampton,	5 7	2 6	1 11	2 11
Rutland,	5 6	2 7	2 1	3 1
Leicester,	5 9	2 8	1 10	3 4
Nottingham,	5 9	2 8	1 11	3 1
Derby,	6 4	—	2 1	3 6
Stafford	5 10	2 7	2 2	4 2
Shropshire,	5 11	2 9	2 1	4 2
Hereford,	5 4	3 2	2 1	—
Worcester,	5 11	3 1	2 3	3 2
Warwick,	5 6	—	1 11	3 3
Gloucester	5 11	2 9	1 11	3 3
Wiltshire,	5 2	2 11	2 4	3 10
Berks,	5 7	2 10	2 3	3 2
Oxford,	5 10	3 2	2 5	3 3
Bucks,	5 7	3 0	2 2	3 1

### C O U N T I E S   U P O N   T H E   C O A S T.

Essex,	5 1	2 4	2 0	2 10
Suffolk,	4 11	2 3	1 11	2 7
Norfolk	5 4	2 3	2 1	—
Lincoln,	5 3	2 3	1 10	2 9
York,	5 9	2 6	1 11	3 4
Durham,	5 8	3 0	2 0	4 3
Northumberland,	5 4	2 7	1 10	3 7
Cumberland,	5 10	3 2	2 0	4 0

C O U N T I E S

## COUNTIES UPON THE COAST.

	<i>Wheat.</i>	<i>Barley.</i>	<i>Oats.</i>	<i>Beans.</i>
Westmoreland	6 8	3 4	2 0	4 8
Lancaster,	6 6	—	2 4	3 6
Chester,	6 1	3 1	2 2	—
Monmouth,	6 1	3 0	2 3	—
Somerfet,	5 7	2 11	2 2	3 9
Devon,	5 9	2 9	1 9	—
Cornwall,	5 6	3 1	1 9	—
Dorset,	5 6	2 0	2 2	3 9
Hampshire,	5 3	2 11	2 1	3 6
Suffex,	5 5	—	2 1	—
Kent,	5 4	2 8	2 2	2 8
Wales,	5 8	3 1	2 9	4 1
General Average,	5 7	2 9	2 1	3 5

LONDON PRICES OF CORN FOR  
AUGUST, 1788.

<i>Grain.</i>	<i>Quarters.</i>	<i>Price.</i>	<i>Average per Quartr</i>
		<i>£. s. d.</i>	<i>£. s. d.</i>
Barley	— 2338	— 2289 19 9	— 0 19 8
Beans	— 4963	— 5354 3 9	— 1 1 7
Malt	— 3251	— 5144 10 1	— 1 11 5
Oats	— 38926	— 30530 2 10	— 0 15 8
Peas	— 1693	— 2150 14 6	— 1 4 8
Rye	— 594	— 670 17 5	— 1 2 9
Wheat	— 10369	— 21815 19 7	— 2 1 11
	<u>62134</u>	<u>67956 7 11</u>	

COURSE OF EXCHANGE FOR  
AUGUST, 1788.

Amsterdam,	38 1	Leghorn, - -	47 6-8ths
Hamburgh, -	34 11 1½ 2½U	Genoa, - -	44 15-16ths
Paris, - - -	28 3-4ths	Venice, - -	48 1-8th
Cadiz, - - -	35 1½	Lisbon, - -	65 1-4th
Madrid, - -	35 5-8ths	Dublin, - -	9 3 8ths

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A N N A L S  
O F  
A G R I C U L T U R E.

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WEST INDIAN AGRICULTURE.

*By the Editor.*

THE controversy respecting the slave-trade, which has taken place in this kingdom, renders every circumstance respecting the mode of conducting the Agriculture of our Sugar Islands peculiarly interesting; there are two points among many others, which claim particular notice:—*First*, the produce, profit, and advantages of all kinds which flow to this kingdom from the culture of sugar, as already established:—*Second*, the benefit which has, exclusively, attended the investment of British capitals in the West Indies.

The arguments heard in all companies, on the subject, throw the enquiry very much upon the political importance of those islands.—We are

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told,

told, that however humane the business may appear—yet, that the importance of sugar is so great to this kingdom, in a vast variety of respects, that, to impede or clog the cultivation, would be little short of madness.—It becomes, for this reason, every day, more and more interesting to ascertain clearly, the nature and extent of the importance which is thus contended for.

Under the first of these heads it is urged,—that the produce is much greater than I have asserted.—Under the second, that the vast property possessed, at present, by the nation, in the West Indies, has been created by the West Indies, and would have had no existence if we had not possessed those colonies.

It is useless to have recourse to many authorities upon these questions:—I shall recur to one only; and make the choice, because the enemies of the abolition of the slave trade cannot object to his evidence, being the most powerful advocate, for that trade, by far, of any that I have consulted:—a resident planter in Jamaica, and one who had every opportunity of ascertaining whatever facts he chose to search into. The writer I mean is Mr. Long, the last historian of that island:—The following is his account of a plantation, producing one hundred hogsheads of sugar, and fifty puncheons of rum:

Purchase

# A G R I C U L T U R E. 337

*Acres.*

*Currency.*

*£.*

Purchase of—33 of grown plants, at 40l. ..	1320
66 of first and second rat- toons, at 10l. - - - }	660
33 of young plants, at 30l. -	990
25 of plantanewalk, at 15l. -	375
25 of negro provision-grounds at 10l. - - - }	250
30 of pasture, at 10l. -	300
88 woodland, intervals, gul- lies, roads, &c. at 3l. }	264
<hr/> 300	<hr/> 4159
100 negroes at 50l. -	5000
30 mules at 30l. - -	900
30 steers at 14l. - -	420
1 cattle-mill, compleat -	300
1 boiling-house -	700
1 curing-house -	600
1 distilling-house -	700
Dwelling-house, and all other offices - }	800
Implements - -	350
Sheep, hogs, and other live stock - - }	100
	<hr/> £. 14,029



<i>Annual Produce.</i>		£.
100 hogsheads of sugar, at 11l.	-	1100
50 puncheons of rum, at 6l.	-	300
		<hr/>
Neat	-	£. 1400
		<hr/>
The produce of 33 acres of plants being,		£.
per acre, 40l.	-	1320
66 first and second rattoons, at 10l.	-	660
		<hr/>
	Gross	- £. 1980
From which deduct		£.
Taxes	-	16
White servants wages	-	140
Supplies and tools	-	190
Negroes cloathing and plys	-	100
Repairs	-	20
3 mules at 30l.	}	114
2 fleers at 12l.		
		<hr/>
	Neat	£. 1400
		<hr/>

Perhaps, in these deductions, 600l. may not be thought too much; and if we suppose such an estate requires 4 new negroes per annum,—these, at 60l. each=240, will make the whole 840l.—Such an estate, purchased at 14,000l. and yielding as above, 1,400l. pays just 10 per cent.”

In remarking on this account—let me, in the first place, correct the estimate, to the deduction of 840l. instead of 580l. and it will stand thus:

Gross

# A G R I C U L T U R E. 339

Gross produce	-	-	-	-	£. 1980
Deduct	-	-	-	-	840
					<hr/>
Sterling £.814	-	-	-	-	£. 1140
					<hr/>

14,000l. yielding which sum, is 8 per cent.—  
 These sums are all currency, exchange at 140.

One hundred negroes, yielding 1980l. may be called 20l. each; or, in sterling money, 14l. 5s.

The capital invested in order to set 100 negroes at work, is the above sum of 14,029l. and one year's expence, at the estimate of 580l.—in all, 14,609l. currency; or, sterling, 10,437l.

Thus the gross calculation I offered, on another occasion, to shew what a miserable produce the slaves in the West Indies yield, per head, is confirmed by this account, which is drawn up by a planter, who must know, from his residence in the island, very nearly, the truth in such estimates. English free labourers produce, of commodities, much less valuable than sugar and rum, from 80l. to 100l. per head; and slaves, in the Indies, 14l.

The above gross produce of 1980l. currency, is 1414l. sterling.—And the farming capital may be thus calculated to be on a par with English husbandry :

					£.
Slaves	-	-	-	-	5000
Mules, steers, and live stock	-	-	-	-	1420

Implements	-	-	-	-	350
First year	-	-	-	-	580
					<hr/>
				Currency	- 7350
					<hr/>
				Sterling	- £. 5250
					<hr/>

An English farm, to produce an equal gross produce, at 4l. per acre, must consist of 353 acres; which may be amply stocked for 2000l. which is near 6l. per acre; and at 4 hands per hundred acres, there would be 14 hands;

Thus,

14 hands, employed by 2000l. capital, produce in England, equally with 100 negroes in Jamaica, employed by a capital of more than 5000l.

This comparison is compleat, for the obvious conclusions that must be drawn from it.—For, what can the violent partizans of our sugar colonies have meant by the exaggerated pictures they have drawn, of the immense profits to individuals, and the nation, from sugar planting? Such assertions, without proofs, have been repeated from writer to writer, and from speaker to speaker, till the mass of readers and hearers have been fully persuaded that the whole was literal and correct truth;—and have been convinced that the power of investing capitals in such a business as this, has been one of the most valuable circumstances attending, and producing the

the prosperity of Britain. But that there is some gross error in such reasoning, must be apparent; or else all the data, on which this Jamaica writer has founded his accounts, are egregiously erroneous indeed.

If, instead of calculating from a single plantation, we take the whole island, the same writer will furnish us with data; and he has authority for his information: £.

Exports from Jamaica to Great-Britain	1,214,758
To North America	- - 85,446
To South America	- - 10,714
	<hr/>
Sterling	- £. 1,310,919

All this produce, he, and many other writers are very eager to carry to the account of Great-Britain; though it is evident that the import from Great-Britain and Africa ought, alone, to come into such an account, which falls considerably short of a million.—To this he adds the following :

Half freight outwards, at 6l. per ton	124,800
	<hr/>
	£. 1,435,719
Freight of sugar homewards	- 184,800
Ditto of rum	- - 50,000
Ditto of other articles	- - 25,000
By insurance	- - 20,000
By commission, brokerage, and other charges	- - - } 260,000

	£.
By profit on 6000 negroes -	125,142
By freight of ditto, at 5l. - -	30,000
By interest of money - -	35,000
By transport of merchants, planters, } and servants - -	4,500
By profit on manufactures, one-fourth } of the total value - -	130,357
	<hr/>
	£. 2,300,518

Such is the detail of benefits which a Jamaica writer would carry to the account of Great-Britain, from the employment of 168,000 African slaves in that island!—It is as curious a one as ever was penned.

However, without being nice in the examination of particulars, let us accept it as the produce and profit which the nation immediately, or ultimately, receives from the possession of 168,000 slaves, with 17,900 whites.

The whites, in Jamaica, are abundantly more valuable than blacks; however, we will run them all together, and instead of calculating at 185,900, will call them only 180,000.—The sum total of 2,300,000l. divided by that number, gives something under 13l. per head. The advantage of sugar plantations is, therefore, pretty clear:—the people, blacks and whites, in Jamaica, by employing a capital of above twenty millions



millions sterling, are enabled to produce 13l. a-head.—Reckoning slaves only, it is something under 14l. a-head.

The writer I have quoted, on this occasion, tells us, that one person in Jamaica, gains as much to the nation, as seventeen at home! Which is extremely like the nauseous fallacies, so often repeated in our old American dream, of every person in the Plantations employing five in Britain; which was such execrable stuff, that common sense ought immediately to have revolted at it.

Let the reader remember, that I am taking the ground of the advocates of the slave trade, —*the benefit to Britain*; it is no answer to say, that the produce of husbandry, in Jamaica, feeds the labouring hands, besides yielding this amount; whereas the labouring hands in England, are fed out of its produce: Such an observation is quite beside the purpose; for the advantage of the mother country depends on the articles, real or imaginary, that are here brought together,—and not, in the smallest degree, on the Jamaica consumption of the Jamaica produce. The wealth, that is the circulation in England, depends on the products of the soil going to market, and being bought by all sorts of labouring hands:—Slavery, which cuts off such circulation, and feeds the working hands, like the teams, without any circulation at all, is so far injurious  
to

to a system, on which the wealth and industry, of all countries much depend.

Such is the comparison of the produce, per working hand, between the agriculture of Britain and that of the West Indies. I will not assert from it, that the import of slaves ought, at once, to be cut off; or that any great, sudden revolution ought to be attempted:—but, I draw this conclusion, and I think I may draw it safely, that the system of labour embraced there, is the least productive of any that is known, probably, in the world; and, that new regulations, which shall have the tendency, gradually, of inducing the planters to get into some other system—that especially, of employing cattle and the plough, instead of negroes and the hoe,—in which observation, the author here quoted, unites, and urges them strenuously to do it,—ought, on every account, to be considered, not as burthenfome, or a hardship, but, as the very best kindness and benefit that can be done for them.

It may be urged here, that Jamaica employs ships and seamen.—Certainly.—But will any man assert that the investment of twenty millions sterling, at home, would not do the same? Look around this country, into every branch of domestic industry, and name me one, that does not also employ ships and seamen? I believe I could shew, that the mere transport of the surplus growth from the cultivation

cultivation which twenty millions would put in motion, with that of the coals, &c. consumed by the additional population, would employ treble the number of seamen that the island of Jamaica does. But this is not all;—for in the case of this supposition, we should have sixty thousand hog-sheads of sugar, and thirty thousand puncheons of rum, to purchase.—Turn your eyes to any other trade of purchase, which we have, hemp, flax, iron, timber, wine, brandy, fruits, &c. &c. and examine, if we do not contrive to make every one of them maintain numbers of seamen.—Not an article of import, of any consideration, from any quarter of the world, but contributes to the maintainance of our mariners; why then is it to be supposed, that we should have sugar and rum to purchase, without the same effect resulting, as in every other trade we have in the world? Those who purchase a commodity, have more the command than those who sell; in spices alone excepted, which is the only national monopoly in the world. Our public revenue might also thrive abundantly,—since we might raise much higher duties on such bulky commodities, that could not, but with great difficulty, be smuggled, when the reason ceased for favouring them, that of being the product of our own colonies.

If we take a view of the whole West India trade, the account will not be at all more favourable to their argument.

STATE OF THE WEST INDIAN TRADE FOR THE  
YEAR 1785.

			<i>Imports.</i>	<i>Exports.</i>
			£.	£.
Anguilla	-	-	2,829	<hr/>
Antigua	-	-	384,651	82,463
Balramas	-	-	14,150	33,235
Barbadoes	-	-	249,959	151,654
Bermuda	-	-	990	6,118
Dominica	-	-	257,967	61,695
Grenada	-	-	438,448	119,131
Honduras Bay	-	-	29,153	1,647
Jamaica	-	-	2,262,905	626,310
Montserrat	-	-	44,055	6629
Mosquito Shore	-	-	20,282	247
Nevis	-	-	88,213	6,838
St. Kitts	-	-	318,618	67,753
St. Vincent	-	-	157,144	54,432
Tortola	-	-	85,876	18,406
			<hr/>	<hr/>
			4,355,240	1,236,558
Africa	-	-	48,535	587,196
			<hr/>	<hr/>
			4,403,775	1,823,754
			1,828,754	
			<hr/>	<hr/>
			£. 2,580,021	
			<hr/>	<hr/>

The strenuous advocates for West Indian importance contend, as we have seen the imports mark

mark the degree of merit in this trade, contrary to all others; and by no means the exports: This mode of reasoning is by no means to be allowed. The amount of the import is, indeed, a very noble feature of the prosperity and wealth of this kingdom; but it is to be carried totally to the account of the circulation and consumption of Britain; and would exist as much, and perhaps as beneficially, if those islands were in foreign hands, as in our own. The internal wealth of this great, free, and happy society, which enables it to consume thus largely, would, by means of that consumption, and the vast interior trade and circulation dependent on it, create all the advantages which, in any degree, flow from the import side of this account. With the export, this is somewhat different; for, though we are sure that the import of four millions, in any commodities, would necessarily create a great export trade, yet, as we do not correctly know, by reasoning from analogy, that it would be of an equally beneficial nature, it is fair to allow the export as the peculiar advantage of the trade, in union with such other circumstances as are known to belong to it;—such as the expenditure of absentees, in Britain; remittances for education; freight, insurance, &c.

That great lesson of modern politicks—the independancy of North America—ought to enlarge the



the horizon of our commercial policy. There is not one observation made to prove the importance of sugar colonies, that has not been made an hundred times, on those which produced tobacco, rice, and indigo. They formed the same species of trade, and were conducted in the same manner; we sent them seven thousand to ten thousand African slaves annually, and a great amount of our manufactures; they employed abundance of shipping and seamen, and we levied very heavy duties on their staples. In a word, that sort of importance now contended for, in relation to sugar, was powerfully annexed to them.—They were violently wrested from us, in a struggle that cost an hundred millions; and, instead of the predicted ruin, the nation arose from the conflict, more rich, more prosperous, and more powerful. That great lesson of experience, however, has no effect; and we admit the repetition of arguments which time has proved so utterly fallacious.

This reasoning is not brought to shew, that the sugar islands are not of consequence;—they have been mischievously made of great consequence: but they are not of the importance their advocates falsely contend for.

In relation to the second point, I proposed to consider, that of the West Indies having created its own capital instead of its having been an improper

proper investment of British ones.—I have to observe, that the lightest reflection imaginable would be sufficient to overturn such an idea.

Suppose their cultivation to have grown out of itself, in any degree contended for, it is only removing the question more backward. If the first investment of capital, by paying ten per cent. profit, has enabled the planters to live upon two or three per cent. and lay out seven or eight upon new improvements, so it would have done in the agriculture of this island, where fifteen and twenty per cent. have been made. I shall presently treat of the impossibility of investing capitals in England; and shew to what it is owing.

But the supposition has very little truth in it. Throughout the progress of West Indian cultivation, it is notorious, that they are the capitals of Britain that have there been invested, either by the possessors, or on credit—And, before the bankruptcy of Mr. Fordyce, in 1772, every one knows the vast capitals that were, every day, investing in the new ceded islands. The nature of the undertaking, to stock a West India plantation, must prove this fact undeniably;—buildings, copper, stills, implements, negroes, &c. if we are to believe the great advocates for sugar planting, eighteen-twentieths, go immediately, or circuitously, from Britain.—And whether a man carries cash, credit-bills, or manufactures, he begins on

on a British capital.—And all the extension of business, from that beginning to the end of time, is compleatly, to all intents and purposes, British capital.

My assertion remains, therefore, unimpeached; twenty millions of British capitals have been invested in an island, where the working hands, quoad Britain, produce but a sixth or seventh of what working hands at home produce. No art of rhetoric can confound this plain fact;—reason about it, and disguise it as you will, it remains clear and indisputable.

And when I have called the sugar islands nuisances, in occasioning such a deviation of capital to, comparatively, a most unproductive business, I am founded in the assertion; for if the comparison was against them in 1768, it is against them now, and will be for ever. If it was wrong to invest twenty millions so, it is certainly wrong to make that twenty, forty.

But how was this capital to have been employed in Britain?

There we come to another enquiry, which well deserves the attention of the British Legislature.

It has been owing to the pernicious and exclusive attention, which in this country has been, on every occasion, given to the commercial interest. *Add so much to the trade, and so much to your shipping, and all must go well:* This has been

been the language of Parliament for these hundred years past; and the principle once adopted, has occasioned every possible facility to be given to commercial investments, without one thought of attracting a shilling of capital to the national agriculture; which has been absolutely overlooked, as of no sort of consequence; and every circumstance relative to it, has enjoyed so little attention, that the state of it, during the same commercial century, has been left rather repulsive of capital, than attractive of it. The system of taxation which has been adopted, has gone absolutely to the favouring of commerce; and all sorts of privileges, immunities, bounties, &c. have been lavished with the same intention. After an hundred years of this policy has had the effect to invest all considerable capitals in industrious hands, either in manufactures or commerce; and not simply so, by encouragement alone, but doubly so, by, at the same time, burthening agriculture, we are asked, how can capitals be so invested? I agree that they certainly cannot;—and this is the glaring evil I complain of: had a different policy been adopted by the legislature, all these capitals might have been well employed, and the whole island have worn the face of a garden.

I believe nobody will dispute, that the method to encourage agriculture, in any country, is to



throw the cultivating possessor of land, (not the idle one, or mere landlord,) into the most easy and beneficial situation that is possible.—By so doing, a monied-man may be induced to become the planter of corn and turneps, as well as of sugar and indigo; and does not want to be told that such an attraction of capital is highly beneficial. But, as if such a principle was false and rotten, the legislature have, on every occasion, taken the direct contrary road.

The land-tax was one essential step towards damning the system that I contend for: It meant to lay a duty of 20 per cent. per annum, on the raw material of this species of industry; and actually, at present, amounts to 10 per cent.

The intolerable burthen of poor rates—the result, very much, of manufactures—has been thrown on the cultivator of the soil; they amount to near another 10 per cent. per annum, on his raw material. What would the planters of sugar say, were they to pay a tenth of their gross produce to the church? Such a tax would have effectually prevented the cultivation altogether.—But as the settlers carried out with them the English constitution, law, principle, and religion, why were they not burthened with tithes abroad as well as at home? Because they were considered as *commercial* settlements, and therefore exempted from



from it :—The culture of the soil in England, was *agricultural* : and therefore no steps taken to ease or commute it.

Here are three taxes which amount to eight shillings in the pound, on an average of the kingdom, supposing tithes compounded; but if gathered, of ten, and even twelve in the pound; that is, of 50 per cent. per annum on the raw material of this branch of industry. While such excessive burthens were either laid or permitted, what hope could there be of attracting capitals? The legislature, to be sure, knew this; and thought that the capitals were much better employed on the other side of the Atlantic.

But further—for there is no end of the discouragements which agriculture has received in this island.

The valuable, but waste lands, amounting to a fourth, even of England itself, which, in a different system of policy, monied-men would have been glad to have purchased, instead of buying American wastes, have been continued under the curse of common rights, as they are called, but really common nuisances, and their inclosure, purchase, and improvement, rendered impossible, without obtaining consents, infinitely difficult to procure; and distinct acts of Parliament for every attempt, at a heavy, and even enormous expence; manifesting thereby, an express avowal in the

B b 2

legislature,

legislature, that the investment of capitals in the improvement of those lands, would be injurious to the public interests, and hurtful to the national prosperity. And though, at present, the folly and futility of that doctrine, which has been laid down by some of the most mischievous and pernicious writers that ever arose in any country, willing to impede the current of its prosperity, is now well known and acknowledged; yet no general steps have been taken to ease and accelerate an universal inclosure of those lands, which would be the first step towards the investment of capital, in their cultivation.

No step has, in this long period, been taken to force the culture of absolutely waste land;—immense tracts of it are engrossed by great Lords, who will neither sell nor cultivate it:—Private property ought to be sacred; but every species is exposed to taxation; and had as much attention been paid to agriculture, as to commerce, taxes would have been laid on land, not in proportion to its value, but to the waste state it is left in. The only species of land-tax admissible, on just principles, being that which contributes to the full improvement of the soil.

And to shew more clearly and distinctly, how superior the commercial interest has always appeared to the legislature, to the agricultural, the export of wool and hides has been forbidden;  
and

and even corn and hay, at certain prices; thereby giving a monopoly to the home consumer, at the sole expence of the grower. In the article of wool, alone, this has been an enormous tax;—suppose the growth six hundred thousand packs, and the value 6000,000*l.* per annum :—50 per cent. monopoly decline in the price, has been a tax 3,000,000, or more than the land-tax, at four shillings in the pound; that is to say, 15 per cent. on the raw material of the worker of the land.

When all these circumstances are brought into combination, they will yield abundant reason for capitals having taken the deviation to American agriculture, instead of being invested upon the soil of Britain. The active encouragement given to the commercial system, and the depression or neglect of the agricultural one, by the legislature for a century past, are fully adequate to explain it.

Very much, in this enquiry, depends on what would be the profit of British agriculture, were another system embraced—that of perfect freedom. A free export of all the products of the soil :—a free inclosure :—no land-tax on occupying landlords, who farmed their whole estate\* :—and commuted tithes. If this was well and carefully calculated, the profit would be found

\* The exemption not to exceed one thousand acres.

sufficient to attract the capitals of monied-men, and the whole island would make an astonishing progress in improvement.

But further, it has been asserted that the agriculture of Great-Britain is so well stocked in point of capital, that it would not admit so large an addition as the total amount of what has been invested upon West India property, amounting not to less than seventy millions sterling. But such an assertion is totally unfounded. The agriculture of this kingdom is well stocked, only on comparison with other large countries that are very ill stocked, and on Scotland, even on comparison with these, will be found much below them: But, calculating only from England, I will venture to assert, from having viewed very accurately, and reflected, at various periods, much upon the subject, that not one-thirtieth of the kingdom is nearly under a tolerable full stock. That the waste lands alone, reckoning them no more than eight millions of acres, would absorb eighty millions sterling, to inclose, plant, build, and cultivate them; and that there are twenty millions of cultivated acres, so insufficiently stocked, that they would pay a better interest for expending fifty millions more upon them, than they do, at present, for their actual stock; and, that when these one hundred and thirty millions were thus invested and employed, the kingdom would then  
be

be so far from fully stocked, that it would not be in an equal cultivation with parts of Flanders.

Hence, I may justly assert, that the idea of the agriculture of England being so near fully stocked, is the most erroneous one imaginable. I can hardly name ten farms of my personal knowledge that are so; even in the hands of men of fortune: for, let it be considered, that a farm is not fully stocked that has necessary work upon it unexecuted; or that would carry more cattle or sheep than are found upon it:—Take these two objects in contemplation, and recollect how many points they bear upon,

If friability is not given to wet lands by draining, and tenacity to dry ones by claying or marling—If water is not in irrigation conducted over the lands where it might be conducted—If gorze, fern, ling (*ullex*, *pteris*, *erica*), &c. are permitted on fields that would produce, with improvement, better plants—If bog-marsh, or fen, remain undrained—If as much manure is not raised, in the farm-yard, as might be—If water-courses and ditches are not kept clean—If bad breeds of cattle, sheep, hogs, and horses are kept where better might be maintained—If bad implements are in use, instead of good—If horses, cows, bullocks, and young cattle, are feeding at large, for want of buildings to stall them, or of labour to attend them—If fallows are continued, for want



of force to substitute fallow crops—If a field produces but one crop in the year, which, with additional labour, could produce two—If soils of all sorts, are not applied to the production of the most valuable crops of which they are capable.—In all these, and in a thousand other cases, the soil is not stocked:—Its cultivator may have money in his pocket, and be a rich man; but his capital is not employed in the most advantageous investment;—and the kingdom is understocked.

If gentlemen and farmers will only examine their farms, with a critical attention, as to these criteria, they will soon discover how abundantly more capital might be profitably employed †.

What gives occasion to much error, on this point, is a mistake often made:—a farm is often stocked, according to a bad system of husbandry, but very far below a good one.—For instance: turnep-land may be summer-fallowed, and consequently, little cattle kept: Cows, &c. may feed at large, and consequently, much fewer kept than if stalled and soiled:—in either case, the land is understocked.

† In a rough way it may be observed, that land which has not ten pound an acre expended on it, exclusive of mansion or farmhouse, will generally be found under-stocked: To include in this, making the fences, raising the farm offices, live stock, implements, and a year's annual expences, viz. rent, tithe, rates, labour, and wear and tear,

But,

But, in reply to all this, it is further said that, at present, it is not a question, whether this investment of seventy millions was judicious or not; —at this moment it is so invested, and cannot be withdrawn; and that consequently, every encouragement ought to be given to support and increase it.

This argument is as much as to say, that having made one error, we ought to persist in a series of errors to support and continue it. If the foregoing reasoning is founded, the contrary is fact: We know, at present, by ample experience, that the facility of being supplied with African slaves, has greatly contributed to the constant and regular investment of British capitals in the West Indies. I have proved clearly, that that investment is a national evil; comparing it with another policy which might, and ought to be, embraced at home. Then it surely follows, that any new regulations, which may have the tendency to keep things as they are, in the sugar islands, and to turn the superlucration of British capital into other more domestic, and infinitely safer channels, would, far from being an evil, prove a positive and effective good. This train of reasoning is all dependant and connected; if one position is allowed, the rest necessarily follows.

But here is an obvious call upon the statesman who is at present at the head of His Majesty's councils,

councils, to give such encouragement to agriculture *practised as a trade*, as may induce mo-  
nied-men thus to employ that surplus, which  
at present is invested in the islands :—I have taken  
the liberty to hint at means which would answer  
this end very effectually. Something also might  
be done in this respect with the Crown lands ; but  
so much depends on the mode and the circum-  
stances under which they are carried to market,  
that little can be expected from them, unless the  
business is executed upon principles, totally contrary  
to those which governed the sale of Enfield-Chace.

If the commissioners, in whose hands that agri-  
cultural business has been placed, *know the right  
end of a plough*, something may be expected  
from it.

Another argument that has been urged on this  
business, is, that if we regulate our slave trade,  
the French will not do the same with theirs; and  
while we are checking our West India Colonies,  
our active neighbours will be encouraging theirs.

This objection takes its rise from the old prin-  
ciple which has governed this kingdom for a  
century ;—that our prosperity arises from the po-  
verty of our neighbours—and our declension from  
their wealth. This is not the moment to shew  
the folly and futility of such ideas :—But if our  
neighbours chuse to continue, to invest all their  
capitals, not upon the soil of their noble Euro-  
pean

pean territory, (which I could prove wants, at this moment, much above five hundred millions sterling of being fully stocked,) but, upon the wastes of St. Domingo, it is not our business to prevent it; but it is certainly our business not to be deceived with such fallacious reasoning, as to believe, that because France shall act in that manner, *therefore* she will grow too powerful for us, who are employed *at home*; for if the reasoning which I have offered, in this paper, has any thing of truth in it, that circumstance will have a direct contrary effect: The investment of British capitals on the soil of Britain, will have, of all other employments of it, the most certain tendency to render us powerful; and while that is the case, it is of very little consequence what is the conduct of our neighbours: For them to do the same, would be most beneficial to them; but if they think differently, and chuse to leave the wastes of France, as waste as ever, in order to exert all their powers in the cultivation of West Indian ones—it is their consideration, and not ours. Time would assuredly prove, which of the two nations had made the justest calculation.

The conclusion from the whole is, that the system of West Indian agriculture being so inferior to another, that might be embraced, and a real mischievous deviation of capital,—we ought not, in the great question of slavery, at present  
before

before the nation, to admit the assertions and arguments that are founded on the prodigious importance of these islands.

Since the fact is, that they are of no importance whatever, but what results from a very ill-combined policy, which has rather driven, than permitted capitals to be so invested. And if, on the one hand, that false importance is urged, then, on the other, we may plead for that better system, which would supersede the necessity of such a reliance on West Indian cultivation.

A. Y.

## A TOUR IN SWISSERLAND, IN 1786.

*By Mons. Lazowski.*

**A**GRICULTURE is not cultivated as it ought to be: That noble art is left entirely to the country-people, who find no examples in some spirited cultivations, and no emulation in the general motion of activity. Two circumstances ought to have carried agriculture to a great pitch:—The country-people are proprietors, and pay no direct impositions upon their lands; but nothing can take the place of a good system of government. What is at Lucerne a true premium to agriculture, is the neighbourhood



bourhood of the small cantons, chiefly of Switzerland and Underwald, which the State is engaged by treaty to supply with corn; that is to say, they are free to come to the markets at Lucerne, and to purchase their corn:—This is a benefit. Lucerne supplies the consumption of its neighbours; and, in case of scarcity, the Government opens the public granaries: but it never sells to loss.

Plough-lands are cultivated pretty generally upon the same system as in France: they fallow them—nevertheless they affirm, that if they had dung enough to manure, every year, they would get a crop of corn yearly:—This proves that they have no idea of a rotation of crops. Sometimes they plough up their pastures, and cultivate them just as those of which I have spoken; yet sow, always to renew them.

They have very good horses; but plough much with oxen:—Their manner of harnessing them is better than in the canton of Berne, where they are tied by their horns; and a good proof of it—their oxen perform the very same work, and more quickly. I should think yet, that this manner is inferior to collars:—that manner is known in France and England:—it consists in a kind of yoke; a piece of wood, lightly arched, in order to fit the shoulders:—this yoke is fixed by a circle of iron suspended under the neck,  
and

and tied to the yoke by two ropes, where the oxen draw ; that circle is closed to the shoulder. It has appeared to me, that when the ox draws, his breath is constrained : for, although the strength of traces should bear chiefly above the shoulders, on the back, nevertheless that strength discomposes itself.

A fine and good horse, strong, and well made, is worth from sixteen to eighteen louis.—The State has several sets of horses working for its account :—among those horses there are several stallions, to which the country-people are free to carry their mares ; they pay six livres.—This institution has its advantages.

Country-people are all generally proprietors, and many are easy :—Taxes do not overload them :—They pay the tithes even to the tenth—ten sous yearly to the bailiff :—They make the *Corvées* or pay the work :—The distribution of the public works is made by the jury-man of the parishes, under the appeal to the bailiffs ; and they are obliged to the military service ;—if they are exposed to some vexation, it is only by the administration of the bailiffs ; but on the whole, they are happy.

I must observe here, that the country-people make themselves to be feared ; and if they do not carry their ideas high enough to claim an active participation in the Government, they have

have a fixed determination not to be taxed, or vexed in any thing, beyond what usage has consecrated; and what is worth to be noticed, that usage has taken place in a time, in which the manners were upright, and in which the public spirit secured the Government from the abuses which exist.

Every farm that is a little considerable, has a tract on the mountain; the country-people yet are not so generally proprietors in the mountains, but, either they take care of the cows of the proprietors, in winter, or, they keep them conjointly with their own:—They make the cheese, in order to have the right to conduct their cows in pasture; or in fine, they pay for it. But in general it may be said, that an estate is composed of lands in the valley, and mountains.

We were told at Lucerne, that the cow-keepers, when they milked their cows on the mountains, were obliged to cover their mouths, not to breathe the emanations of the milk, which as those of aromatic plants, in a large quantity, would cause a kind of asphyxy; the fact is possible, though very difficult to believe.—I do not know but it proves, at least that pastures are amazingly aromatic; and that it is a kind of madness to pretend, with cows of Swisserland, to have the same quantity, and the same quality of milk, and to get the same cheese, in following

lowing their process. A good cow gives eleven pints of milk, which goes near to twenty-seven of our bottles.

Their cheeses go generally to Italy. It happens but seldom that they make cheese with the milk of goats which pasture the mountains; but in general, that milk is consumed by poor people.

I cannot leave Lucerne without speaking about the work of General Pfiffer,—I would have a great deal to say on his politeness and hospitality to foreigners; but I must be confined to his plan, in relieve, of the stone of Swisserland, if I may use that expression;—that hilly, mountainous part is about fifteen leagues long, upon ten broad. I cannot be a judge of it, but it has appeared to me very well conceived; and carried into execution with a great deal of industry and skill:—The least isolated house or rock—the brooks or falls of water the least remarkable;—every thing, in fine, has found its place; and if I was able to find out, with ease, not only the places by which we had passed, but to take notice of all the objects which I could remember, though very small, I may believe, or rather I may assert, that the whole performance is executed in the same manner. Those particularities of locality are not the most astonishing; what is truly so, is the height of the mountains, their inclinations and slopes; their forms, which are copied  
upon

upon a scale of a line for fourteen toises. It is easy to conceive that this last part must have been a work of great difficulty, and that to carry on such work, courage has been necessary, as much as perseverance and industry.—I will say, that my imagination is afraid of the immensity of what is necessary to render that plan exact;—it will not be lost;—the General intends to dispose of it in a manner in which it will be preserved.

I have said, in speaking of Lucerne, that it was the beginning of Swisserland, properly speaking;—it may be curious to know its elevation above the level of the sea:—I have it from General Pfiffer. The town of Lucerne is 219 toises 3 feet high, above the Mediterranean Sea; the middling elevation of the vallies is 215 toises; the snow lasts for ever, at 1320 toises; it melts, but near the same quantity stands unmelted yearly. The *Glacier* ices are high, but less elevated than the snow; their height 820 toises;—they get up higher sometimes, and even some begin higher; but generally they are less elevated than the snows, by 500 toises. The vegetation ceases commonly at 1100 and some toises.

From Lucerne we went, in the canton of Swisserland, to see the chapel of Willam Tell, the



founder, or rather the cause that the Helvetical liberty has been planned and executed. The chapel and the spot, have nothing remarkable by themselves; but it is impossible not to wish to be upon a spot, which will be renowned as long as the word Swisserland shall be kept in memory of men.

William Tell is their hero. On the banks of the Holloway, in which the bailiff was killed, they shew a tree of two trunks, which has been planted, to take the place of the very tree behind which Tell was posted in order to wait for the bailiff.

Swisserland is a popular canton, upon the same principles, in general, as the cantons of Underwald and Wey. I call them popular cantons, because the people exercise the sovereign power in all its plenitude, and with a jealousy, of which the ancient Governments alone can give a precedent.

The democracy of those cantons is confined by nothing, and the people know no controul.

The magistrates have nothing left unprovided; foreign business, interior laws, regulation of policy, business of administration, nothing in short can be done but by the people, and the rights are equal: the young country-people who have, or believe

lieve they have, the talent of speaking, can, as well as the old magistrate, make a speech, and propose what they believe useful. The general meetings of the people are held every year, except on some extraordinary occasions: they last sometimes two or three days.

Those cantons are mountainous; and the soil is very middling.—They are rather people's *pastures*.—They live on the product of their cattle; and get from their neighbours, the corn and wine necessary for their consumption.—They have no taxes.

The people are good; the jealousy, the fear, though very unfounded, that their liberty may be prejudiced, can alone lead them to violent proceedings: but then they are blind—they discourage the manufactories—the facilities of commerce—and the communication with strangers, merely because they think that their liberty would be exposed, directly or indirectly. In general, strong passions, and enthusiasm, decays with time;—this subsists in its first state, and the people continue to be proud of a tempestuous liberty. The individuals distinguish themselves by a denomination as high-spirited as simple.—When they meet, they salute by the appellation of freeman, *good day freeman*.—And I have heard that the fea-

tures of liberty could be seen upon their faces at that moment.

In order to get to Zurich from Lucerne, we went through the small canton of Zug, of which we have seen the town and the lake:—This town is very particular in one point, it is the only one of all the other popular cantons with walls.

The territory of Zug, various;—divided into plough-lands, meadows, woods and orchards; the plough-lands are planted with trees, and the whole country seems an orchard: It is certainly adapted for keeping cattle, which are very fine. I have seen some portion of lands dry and very sandy, cultivated by spots, and planted with potatoes. Those sandy and poor lands would consume too much manure; they plant, therefore, the only parts upon which they can spread manure. This brings to my recollection, a circumstance of which I have not spoken, and which I have observed at Lagau, or rather in that part of the canton of Berne, which I have passed through from Rhuse to Lucerne. They gather, in the woods, all the moss which they can get; they put it in heaps, before their houses, and in winter, it is useful to increase their dunghills. They form their heaps of dung, in intermixing beds of moss with beds of dung, and they set them to ferment till the season of planting their potatoes, for which they find

find that kind of manure *very* good. Sometimes, also, they use the moss alone, and with success;—they deposit immediately in the moss, the potatoes. I thought it pretty extraordinary to find, in Switzerland, a method which I had seen executed only in the Highlands of Scotland.

From the canton of Zug, you get into the sands of Zurich:—We stopped at three leagues from this town, upon the top of the Mount Albis, in order to enjoy one of the handsomest and most amazing prospects which a traveller can possibly meet in Switzerland.—You must go to catch it, on the highest point of the mountain upon which the house of the keeper, who repeats the signals, is built.

From the Mount Albis you come down constantly to Zurich; the way is truly agreeable; it goes between the lake on one side, and a ridge of hills, well wooded, on the other side. The lake is sometimes covered, but the rich prospect of the bank makes amends for it.

Zurich is a town well built, in which you perceive a general ease.

This town, seated on the Northern point of its lake, is divided by the Limmat, which issues from the lake, and is navigable; it empties itself in the Aar, and by it Zurich communicates with the Rhein, and exports a part of



its manufactured goods. The town, properly speaking, is inhabited only by its citizens; they, alone, can trade, and exercise the arts of any kind;—that rule is without exception:—It is possible to get leave to inhabit—but to make an establishment would be impossible. Thus, those who are not citizens, but yet inhabit the town, are but common labourers, artisans, and workmen, hired by the burgeses, in order to help them in their trade and various occupations.

This regulation, very remote from the spirit of a monarchy, belongs to the nature of this Government. The citizens alone constitute the Sovereign; a mixture of inhabitants in a greater or less number, which the facility of practising the arts could call thither, would, in time, become a source of troubles.—They attribute to it the dearth of the town. I am inclined to think, that Zurich is not dearer than all the other towns of the same order, in which there is a great command of work, and where the prices of every thing must be kept upon a good footing, without being excessive.

The manufactory of this town is variously employed in silk-stuffs;—this is limited to the town and centred in it—in coarse muslins, printed linen, calicoes of all sorts, and some thin stuffs of wool. They assured us, that the last French regulations about the goods manufactured in Switzerland, have hurt this manufacture.

Labour



Labour is very active here; every body is busy:—There are a great many people easy, but few rich. What they call, here, easy, would be called richness in several of our provinces; from four hundred thousand livres, to a million; which is the limit of their denomination of wealth. There were formerly more houses rich, because the manufactory was exercised by a fewer number of people; it is carried on, now, upon a larger scale, and consequently the benefits are more divided.—They seem to complain that those benefits are too much limited; and they give, as a proof of it, that the capitals in trade produce only from 12 to 15 per cent.—This is, to me, an evident proof, that the manufactory may be still encreased;—the capitals, in great English and French towns, are not always so much productive.

Zurich has several useful establishments:—An Orphan-house, in which they admit only children of citizens.—This law is just, and without inconveniencies, since the citizens have built and founded it, and since the parishes must keep their poor. That house has 33,600 livres of income:—It maintains, commonly, ninety-two orphans of both sexes;—they are kept very cleanly, well fed and well dressed,—The boys are taught first to read and write, at the same time with their religion: Then, as the end of every establish-

ment in a manufacturing town, must be to train able workmen, they are all exercised in drawing; which exercise lasts long enough to shew whether they have naturally some abilities or not:—if they succeed, they are as fully instructed as manufactories require; otherwise, they give to them the profession for which they are the most fit and inclined.

Girls are educated in the manner which seems exclusively convenient to them; all are taught the useful works of their sex.

The College seems upon an excellent footing; all the boys universally receive their education in it. The sons of citizens not wealthy—of artisans, as well as of the rich; all may be preferred to offices; all, therefore, want instruction: As to the poor, the State provides for them—not only it takes the charge of their education, but it maintains a certain number of them in the College, where they are dressed, fed, and taught, for nothing; and, when they shew some abilities, their studies are continued far enough to render them able to get in the Church:—We have been assured, that they have, commonly, excellent clergymen by it.

This College is not confined to the study of the latin and greek languages, but there are professors of mathematics, natural history, and philosophy; public lectures upon the theory of commerce:—

In

In a word, they have centered in it, all what could be useful in a State, where the manufactory is quick, and in which, the citizens must find some employment at home.

I have found again, here, what I had seen at Basle—a mass of knowledge—a love of literature and learning;—which might be thought an exaggeration. There are very few young people who, when they leave the college, to enter into any business, would not be able to read the latin and the greek poets, at least Homer.

The public library is a very fine room converted to that use.—It has seventy louis yearly, for keeping and enlarging it.

I have seen, in this town, with pleasure, a sort of museum, (the Physical Society).—It is a collection of natural history and philosophy, and of every thing which can be useful, and improve agriculture. A free assembly of citizens has established this academy, in which they discuss and examine projects and new inventions, in arts and mechanics. It employs itself particularly on agriculture:—It proposes, in the country, problems to resolve, rural questions to examine;—it invites the husbandmen, the farmers, to send memoirs;—it discusses them with the farmer, in a meeting where they are invited; and the best memoir is rewarded by a medal. I am ignorant how much they join practice to this institution.

Public

Public granaries are always full, and in case of scarcity, they are opened, and the corn is often sold at loss; because the State never pretends to be repaid the interest of the capital.

But after such a beneficial regulation, I must speak of another which is truly inconceivable:—The price of corn is rated in all the markets, and no body can sell it above the regulated price. It is true, that this rate is as consequent as this of bread; but there is yet this difference, that no body is obliged to be a baker; whereas the farmer is obliged to sell; and it is not only absolutely necessary that lands should be cultivated, but farmers must be easy, in order to be able to carry on a good husbandry. Now to oblige them to sell at such price rated, is to establish a hard, and rather absurd monopoly in favour of commerce; and though the rate would be proportioned to the prices of neighbouring States, and of the plenty, or scarcity of grain, nevertheless this is a violent and arbitrary manner of doing ill, what competition alone would do well.

Zurich has produced several celebrated men of letters, and this town must value itself upon having M. Lavater and Gesar;—we have seen them both.

The first is known in France only by his work of *Physiognomies*, but he is both a poet and orator; his name as a poet, is known by his poem on the Messiah,

I have



I have never met with a man that has had so much effect on me as M. Lavater :—his face is handsome and regular—his countenance natural—his motion appeared to me all expressive;—every thing breathes in him a warm, burning imagination, and his soft and moving sensibility is expressed in his features. I am not astonished at his amazing power in the pulpit, independently of the strength of his eloquence.

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## ON THE CULTURE AND MANUFACTURE OF HEMP, IN SUFFOLK.

*By a Manufacturer\*.*

S I R,

**H**EMP may be grown, with success, on the same land, many years, by manuring annually. The quantity of seed usually sown, is from nine to twelve pecks per acre; varying with the strength of the soil, and the custom of the country. In those places where the finest and best hempes are grown, twelve pecks is a common quantity.

\* The author desires his name to be concealed; the paper is left at the publisher's.



The soil and season make a very material difference in the produce and quality. An acre will produce from 25 to 60 stone;—an average crop may be estimated about 36 or 38.

In Suffolk, the male and female, or fembre and seed hemp, (as they are commonly denominated) are pulled together, in about twelve or thirteen weeks from the sowing.—In the fens they are frequently separated. This may arise from their hemp being coarser, and the stalks larger.—To attempt it in Suffolk would be, I think, unprofitable, if not impracticable.

I have never seen hemp growing in the fens, and wish to be understood to refer to Suffolk hemp only, in these observations.

Hemp, when left for seed, is seldom water-retted, from the additional trouble and expence; but I am of opinion it would be better if so done.—It is generally stacked and covered during the winter, and is spread upon meadow-land in January or February. If the season suits, (particularly if covered with snow) it will come to a good colour, and make strong coarse cloths.—It is much inferior to hemp, pulled in proper time, and water-retted.

The custom of many places is to dew-ret their hemp;—that is to spread it on meadow-land as soon as pulled, and turn it frequently; but this is a very bad method of retting it;—  
the

the bark will not come off compleatly—it therefore requires more violent means of bleaching the yarn, and consequently diminishes the strength.—It is likewise much sooner injured in rainy seasons than hemp water-retted: Water-retting is performed by binding the hemp in small bunches, with the under hemp, when pulled, and as soon as may be, placed in rows crossing each other in the water, and immerfed.—Standing water is deemed the best:—It requires four, five, or six days steeping, till the outside coat easily rubs off, and is then spread on meadow-land, and turned frequently until finished.—The same water will not be proper for receiving hemp more than three times in a season, and the first water always produces the best colour, in the least time.

But I do not pretend to give exact directions for managing hemp—it can only be acquired by practice. When the hemp is retted, it is bound up in sheafs or large bunches, and with a machine called a brake, the cambuck is broken in pieces, and with a swingle is cleared from the small remaining pieces of the cambuck, and then bound up in stones.—In Suffolk  $14\frac{1}{2}$  pounds of hemp is deemed a stone. The hemp which breaks off in the operation, and called shorts, is bound up by itself, and is about half the value of the long hemp.

The price of breaking hemp varies with the length, and the ease or difficulty with which the cambuck

cambuck separates from it:—From 12d. to 18d. or 20d. is paid:—12d. and 14d. are the most common prices.—The refuse is only fit for burning, and is sold from 1d. to 2d. per sack.

I have been informed there are mills erected for breaking flax; and as the mode of breaking is similar, I imagine they might be applied to hemp. In some parts of the country, where much hemp is grown, this might prove a considerable saving.—But as hemp is very bulky before it is broken, and small quantities only are grown in each village, in general, I fear it would not answer the expence to erect many of them.

When the hemp is broken it is fit for market, and is purchased by hicklers. Diss, Harleston, and Halesworth, are considerable markets for hemp; but the greatest quantity is sold to neighbouring hicklers, without carrying to market.

The prices vary very much:—Dew-ret hemp sells from 1s. to 18d. or 2s. lower than water-ret. The present price of the best water-ret is about 8s. 6d. per stone:—This price is very high. Dew-ret hemp is proper for coarse yarns only: and if that were made from water-retted hemp, it would be stronger and of a better colour.

The first operation of the hickler is bunching or beating the hemp;—this was formerly, and is still, in some places, done by hand; but, in Suffolk,

folk, is now always done by a mill, which lifts up two, and sometimes three heavy beaters alternately, that play upon the hemp, while it is turned round by a man or boy to receive the beating regularly. This mill is sometimes worked by a horse, and sometimes by water; but I think a machine might be contrived to save the expence of either.—In this I may be mistaken.

The time requisite for beating the hemp, varies according to the quality of it, and the purposes it is intended for;—the finer the tow is intended to be, the more beating the hemp requires.—When bunched, it is dressed or combed by drawing it through hickles, resembling wool-combers tools, only fixed. The prices paid the hickler vary in different places, and with the different degrees of fineness to which it is dressed—from 3 farthings to 2d. per pound is paid; and the earnings are from 15d. or 16d. to 2s. per day.

In the hemp trade, there are no fixed rules for combing, as in the wool trade. The same hemp is dressed finer or coarser, to suit the demands of the purchasers.—It is sometimes divided into two or three sorts of tow, and sometimes the whole is worked together for one sort. The prices of tow vary, from about 6d. to 18d. per pound.

The hickler either sells the tow to spinners and to weavers, or puts it out to spin himself,  
and



and sells the yarn to the weavers. The prices of spinning vary with the fineness of the yarn:

	d.	d.
1 clue from a pound is worth, } , spinning, about           -   -   }	7	or 6 $\frac{1}{2}$
1 $\frac{1}{2}$ clue from a pound       -   -	8 $\frac{1}{2}$	or 8
2 clues from a pound       -   -	9 $\frac{1}{2}$	or 9
2 $\frac{1}{2}$ clues from a pound       -   -	10 $\frac{1}{2}$	or 10
3 clues from a pound       -   -	12	

The spinners who buy the tow, sell their yarn to neighbouring weavers, or at the nearest market. The yarn is reeled, in many places, as you have stated:—2 yards, 1 thread; 40 threads, 1 lea; 20 leas, 1 skain; 3 skains, 1 clue, 4800 yards: In others—3 yards, 1 thread; 40 threads, 1 lea; 20 leas, 1 skain; 2 skains, 1 clue, 4800 yards.—The former is the most convenient method for the bleacher and weaver.

Weavers, in general, purchase their yarn from spinners in the neighbourhood, or at markets, and deliver it to the whitester, as he is commonly called, who returns it, bleached, to the weaver; receiving 20 or 21 for bleaching 120 clues. Bleaching the yarn is performed by laying it in large tubs, covered with thick cloths, upon which ashes are placed; and pouring hot water daily through it, turning the yarn frequently, until the bark comes off. It is then rendered whiter, by spreading it on poles in the air.—This is a difficult part of the business; the art consisting



consisting in procuring the best colour with the least diminution of strength.

Weaving is, in general, conducted in the manner I have stated; that is, by purchasing the yarn at market, and after bleaching, making it into cloth of various degrees of fineness and breadth. The breadths are  $\frac{1}{2}$  ell;  $\frac{1}{2}$  wide;  $\frac{3}{4}$  and nail;  $\frac{7}{8}$  and yard-wide sheeting; yard-wide; 7 yards  $\frac{1}{8}$  wide; and ell wide. Prices from 1cd. per yard, half-ell-wide, to 4s. or 4s. 6d. ell-wide.

Exceeding good huckaback is also made from hemp, for towels and common table-cloths.—The low priced hems are a very general wear for husbandmen, servants, and labouring manufacturers;—the sorts, from 18d. to 2s. per yard, are the usual wear of farmers and tradesmen;—the finer sorts,  $\frac{3}{4}$  wide, from 2s. 6d. to 3s. 6d. per yard, are preferred by many gentlemen, for strength and warmth, to other linen.

The largest quantity of hemp is sold as it comes from the loom, and bleached by the purchasers; but some quantity is bleached, ready for weaving, either by the weaver or by a whiter:—This is done by boiling it in lye, (made from ashes) and frequently spreading it on the grass till it is white.

Many weavers vend their cloths entirely by retail, in their neighbourhood; others to shopkeepers, principally in the counties of Norfolk

and Suffolk, and in part of Essex; and others at Difs, where there is a Hall for the sale of hemp cloth, once a-week—and at Norwich, where there is a street occupied by weavers, from different parts of the country, who have shops in it.

The earnings of the journeyman weaver vary considerably, from the season;—frosty, windy, and very dry weather being unfavourable;—and they vary, also, from the great difference in skill, and the quality of the materials to work upon:—They may earn from about 1s. to 1s. 6d. per day; in extra cases, more.

I think, Sir, you will perceive, from the statement I have given, of the manner in which the hemp trade is conducted, the impossibility of ascertaining, with any tolerable degree of certainty, the profits arising from an acre of hemp, converted into cloth; and that estimates, drawn from sources so vague and uncertain, would be more likely to mislead than inform.

I will now, agreeably to your request, proceed to mention a few hints, which may tend to the improvement and extension of the trade:

Although I have stated hemp, in the process of manufacturing, to pass through the hands of the breaker, hickler, spinner, whitester, weaver, and bleacher of cloth—yet many of these different operations are frequently carried on, under  
the

the direction of the same person. Some weavers bleach their own yarn and cloth; others their cloth only:—others hickle their tow, and put it out to spinning; others buy the tow, and put it out:—and a few carry on the whole of the trade themselves.—This latter, is the plan which I pursue; the advantages appearing to me considerable.

When the trade is conducted by different persons, their interests often clash:—By under-  
 retting the hemp, the grower increases the weight—by slightly beating it, the hickler increases the quantity of tow, but leaves it fuller of bark—by drawing out the thread beyond the staple, the spinner increases the quantity of yarn, but injures the quality. By forcing the bleaching, the whitester increases his profit, but diminishes the strength of the yarn. The whole should, therefore, be checked and regulated by the weaver, with a view to his ultimate profit; which, in the hemp trade, should ever be deemed inseparable from the strength of his cloths.

It appears to me, that in manufacturing cloth, in general, in Ireland, Scotland, and elsewhere, strength has been sacrificed to fineness and colour.—Flax is pulled too early, (being finest before it acquires its full strength), and drawn beyond its staple, to render the cloth finer, at the price; and although there never was a time when

the linen manufacture excelled so much in colour and in fineness, yet the want of strength was never so universally complained of.

The hemp manufacture cannot rival that of flax, in fineness; nor is it desirable:—in colour, it is by no means deficient, and possesses this advantage over Irish and all other linens, that its colour improves in wearing, while theirs decline. But the article in which English hemp, properly manufactured, stands unrivalled is the strength;—flax will not bear the least comparison with it, in this respect; and I can assert, from experience, that it is far superior, in strength, to Russia—the strongest known hemp next to the English.—Every regulation made in the trade should, therefore, be done with a view to improve it in this respect; and one of the most beneficial, I conceive to be an increased bounty on the growth of hemp;—if it could be procured, the additional bounty to be paid for hemp water-retted only.—If large farmers could be induced to grow it, as they became habituated to the management of it, the trouble would decrease, and the bounty might, in time, be discontinued.

The necessity of keeping up the quality of the cloths, should be strongly impressed on the weavers;—perhaps if premiums were given for the best manufactured hemp cloths, it might be serviceable, under proper regulations. I think the  
public



public would be found very much disposed to encourage a strong manufacture of cloth; and there are facts which induce me to think so.

Considerable quantities of Russia sheeting are sold in England, merely for their strength; as they are coarser, at the price, than any other foreign linen.

Hemp, if known, would always be preferred, being stronger than Russia, from the quality of the thread, and at the same time, lighter in washing; which is often an objection to Russia.

The quantity of good hemp being gradually increased, would insensibly increase the number of spinners, and extend the trade. Some regulations are wanting respecting reeling the yarn. —The same method the wool trade has adopted would not, I think, succeed; as the spinners often buy the tow, and therefore it would be impracticable for an inspector to examine the yarn. —But if the punishment were similar, and the owner of the town, the putter-out, or the person to whom it was offered, were permitted to prosecute, it might answer the purpose.

In Ireland and in Scotland, I am informed, there is a Board or committee of gentlemen, entrusted with powers, by Government, for the regulation of the linen trade: If some plan of this kind were adopted, I think it would be very serviceable, as they would acquire, in time,



a compleat knowledge of the trade, in its different branches; and apply such rewards and regulations as the different times and situations would require; and might extend these to circumstances, which general regulations by Parliament could not affect.

In Scotland and in Ireland, each piece of cloth is stamped by an officer, with the length, breadth, and number of one hundred threads contained in the warp.

If a similar practice were obtained here, it would have a beneficial tendency; as the length, breadth, and rate (or number of threads in the warp) being given, it is easy to ascertain what should be the weight. If then, a certain mark were put on each piece of hemp, manufactured agreeably to the best rules, it would improve the quality of the cloths, by exciting competition, rather in goodness than in fineness. This would also prevent a practice which, I fear, prevails greatly;—the selling other cloths, made up to imitate hemp, in lieu of it.

If the method I have hinted should be found impracticable, some means should be devised to prevent this imposition on the public, which, if suffered to proceed, will discredit, and perhaps ruin the manufactory.

You will perceive, Sir, that these are, many of them, hazarded thoughts, which it would require

quire much reflection to mature and reduce to practice.

You enquire if Suffolk hemp is used for ropes? I believe, never.—It is too fine and dear; and sacking is principally made from Russia hemp, although the offal of English is sometimes used.

I hope, Sir, you will find the above account, in some degree, satisfactory; if you wish any further information, I shall be happy to give it you, as far as in my power. You will be pleased to make any use of these hints you think proper—concealing my name. I have enclosed a few specimens of hemp cloth, of different degrees of fineness; and am,

Sir, very respectfully \*,

Your most humble Servant,

Stow-Market, June 23, 1788.

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## A DEFENCE OF TITHES.

*By the Rev. Mr. Moses Grant, of Nalton, near Harverford West.*

S I R,

**H**AVING lately had an opportunity of reading your Annals of Agriculture, I have in several

\* The rapid progress made in spinning wool by machines, renders the subject of this paper, every day, more interesting.

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several parts of them observed, hints thrown out, both by yourself, and several of your correspondents, to the disadvantage of the mode of providing a maintenance for the clergy, by tithes. As I have not seen any observations in your publications, (which I think I have read to the end of 1786) in favour of that mode of provision for the clergy, I beg leave to state what occurs to me on the subject.

Not to mention the antiquity of this mode, in the Patriarchal age; its being adopted into the Jewish code, by divine appointment; its being the general mode of provision for the heathen priesthood of Greece and of Rome, as well as the Arabians, and other barbarous nations, which is a strong presumption, from such general practice, that, as the worship of God is congenial to the nature of man, so that sort of provision for God's ministers, going hand in hand with the worship of God, by the general consent of nations, is likewise the most *natural* provision for the priesthood.—

I say, not to insist on these observations, (the discussion of which would take up too much of your room) it is right and fair, that, as observations disadvantageous to this method of providing for the christian ministers, have frequently been

The public is much obliged to this gentleman, for so clear and valuable an account of a trade of which he is known to be a compleat master.

A. Y.

published

published under your eye; such arguments as are in favour of it, should, under the same conveyance, be made known to your readers.

A provision for the christian priesthood, is not the question, but the mode by tithes: Now if you attend to the valuations of ecclesiastical preferments, made at different periods, and the fluctuating value of money, you will see how very inadequate to the maintenance of the minister, the valuation made in the reign of King Henry the Eighth would be, if tithes had *then* been commuted at that estimate.

The impropriety of the proposal to commute tithes, by securing an annual stipend, is further seen by the pension that is paid to the curates of parishes where the tithes are impropriated. There is not a doubt but such pension was looked upon as a subsistence for the curate at the time it was fixed. Generally five pounds a year, hardly more, was then, and still is, the salary charged on impropriators, who receive the whole tithes—Look into Ecton's Valor, where it appears, that numbers of benefices, in that reign, were valued lower than five pounds; such then must have been the case with all curates of parishes, if all tithes had then been commuted, and would now have been the scanty pittance of such curates, if a gracious Queen had not provided for them. Several cures could not have been served at all, where the provision



vision was so scanty. A commutation for *money* you see then, will never answer the purpose.

If you give the minister *lands*, that is, if it were now possible to accommodate every parish priest with lands, within his parish, the rental of which to be equal to the income by tithes; you would then *oblige* the minister of Christ, to be more attentive to a farm; I mean, he would then, for subsistence, be under a necessity of becoming a mere farmer, whether he understand agriculture or not: He would not even have an option, but *must* turn farmer, and in such a scale as would necessarily take him off from the important duties of his function. Whereas, on the other hand, the resident clergyman, by having tithes, which do not require more than a few days attention to collect, has every thing provided to his hand—He teaches his people to look towards God, as the immediate dispenser of every good—That they pray to him for their *daily bread*—The most suitable provision then for such an instructor, must be a portion of the bounties of heaven, in *that form*, in which the universal parent brings them forth—This *glebe* is generally so small, as only to serve for his necessary stock, and to make agreeable experiments in agriculture, if he chuse, for the improvement of his parishioners and farmers in general. I say by having tithes provided, he has few avocations to take off his attention from his proper business.

And



And this mode is also consistent with the wisdom of Providence, that as the happiness, both temporal and spiritual, of the minister and his people, stand upon the same basis, so he receives from them in proportion as the Almighty hand dispenses his annual blessings to his people. If the farmer have a good crop, the minister is also benefited by sharing with him. If the farmer have a poor crop, the minister can have but his part of that little, so that hereby, both minister and people are as one body, united together by the closest connection, either of welfare or calamity, as the natural body must always be, if "one member suffer, the other members suffer with it." The husbandman is daily labouring for the maintenance of the minister, that *he* may have time to attend to his more important spiritual concerns, which may be of benefit not only for a year, or an age, but for *all* ages; for eternity.

With respect to the ill humour this mode is said to produce, that is an inconvenience that human nature, corrupt as it is, and men generally fond of present emolument, will be always liable to: but let it be considered, that this intermixture of property, this most intimate connection of interests, is between the minister of heaven and his people: It is between him, who is to shew the way, by good example and admonitions, to the region of peace, charity, and good will; and by disinterested-

interestedness to the people he has to deal with ; it gives the minister frequent opportunities, which he would not otherwise so conveniently have, of seeing the disposition of his people, and thereby of applying his remedies, consistent with the general tenor of his life, to shew his people honesty to others.

On comparison of the continuance of tithes, and the numerous clergy supported by them, I may appeal to the records of Westminster-Hall, to prove the disputes to be very few—Nor can any one suppose the minister, who has hardly sufficient to maintain his family, will plunge himself into expensive law-suits, except when the injury is very great—And let me ask you, Sir, if the uproar raised against tithes, in the present time, may not, in your opinion, originate more frequently from those, whose want of temper or principle has constrained the priest reluctantly to take such measures as are complained of.

Nor does the neglect of too many clergymen afford any objection to my argument ; for what is now the fault of a few should not be rendered the misfortune of the whole.

Without insisting on the unreasonableness of the complaint of some, about tithes, because every man *possesses* his estate under that condition, and has done it in this land, for more than one thousand years, so that the clergyman has as much  
right

right to his tithes, as the possessor has to his freehold: I say, without insisting on this *right*, I cannot see the inconvenience of paying tithes *now*, more than hath always been done—Nor can I see why they should be deemed such a discouragement to agricultural improvements, as they are complained to be; for it would be illiberal in the minister, to exact tithes from unprofitable land, cultivated at an unusual expence; indeed the law doth exempt such land for seven years—But in order to prevent any dispute about such exemption, farmers would do well, before they reclaim, to consult their minister.

Considering then such reasonable exemption, and the utility tithes are of in keeping up, between priest and people, the most intimate connection that can be; and considering the improbability and inconvenience of ever providing a permanent and equal establishment for the priesthood any other way; I cannot avoid giving my hearty approbation to what I conceive to be of divine appointment—implanted by general consent in the heart of man, without revelation, or at least a continuance, among heathens, of what had been early established by divine appointment (as we see in the case of Abraham and of Israel before the law) among their forefathers, before their general degeneracy into idolatry.—Considering this to be recognized by the Jewish law, and so far from being

being forbidden by the Christian, that our Saviour, speaking of the nicety of hypocrites, and their *exactness* in paying tithes of *small* matters, and neglecting the great duties of justice, truth, and charity: "These" says he, "ye ought to have done, and not to leave the other (the payment of tithes) undone."

I shall be glad, through the medium of your publication, as this matter has been so frequently mentioned, that the argument against tithes might be fairly stated; and in the mean time, think it not foreign from your subject, because they arise chiefly from the very productions that you so laudably wish to increase.

Another matter I have observed in some of your papers, namely, a wish that Sunday, or part of Sunday, may not be changed to work, in harvest.

When the weather is so unfavourable as to endanger the crop, and when it happens, that on the Lord's day, much corn may be saved, there, "mercy, and not sacrifice is to be attended to."

The *necessity* of the case points out what ought to be done: It is like "an ox or an ass fallen into a ditch" and, therefore, every person is justified in laying hold of such opportunities presented. But when Providence affords fair weather, or when we do not see the crop in danger, what reason can there be for prostituting and profaning that seventh part of our time that is designed for rest and religious



gious improvement, from all ages, to what you cannot urge either necessity or charity for? It takes off from every idea of religious rest to tolerate such a practice—Such indulgence must very quickly banish that awful reverence, in which we wish to hold the Lord's day—Nothing but religion can justify the retreat from business on that day at all—And why should religion give way, without necessity, to what is merely secular?

If some will, as they too often do other blessings, prostitute *this*, by going to alehouses, that is not the fault of the institution, but of themselves: but if from such abuse, you argue that this sacred day had better be spent in labour, you will then set open such an offence to religion, as not to be removed—and the wise institution of the Lord's day, which is one of the greatest blessings given to men—the comfort of the poor, and the interest of the rich to encourage, will be removed—The same argument for abolishing this religious rest, because wicked people abuse it, will be equally good for withholding the general blessings of Providence from every man, because too many abuse such blessings, to luxury, intemperance, and oppression—But “God is good to all” he “sendeth rain on the just, and on the unjust,” and will have us imitate this glorious perfection in being merciful—To afford rest to the poor, as it has always been appointed.

Having



Having experienced the success of sowing old wheat to prevent smut, or bran-corn, I communicate to you my reason, why old wheat does not produce smut. In this country, farmers generally get such a small quantity of English seed wheat, that the produce of that may be sufficient for seed to their whole succeeding crop. This they do every year, for if they sow the *produce* of the *second* year, it hardly fails of producing smut. But if you keep this same wheat unthreshed, over the year, till you sow, this being wholesome and sound, does not imbibe any taint, so as to affect the produce:—It grows freely, and none of it rots before it comes up.

It is a common practice with malsters, to kiln-dry such barley as they mean to malt, when threshed, at Michaelmas, raw from the stubble;—this makes it take water freely, and sprout regularly.

It is also not unusual with farmers, to kiln-dry their new seed-wheat, that is thone and crude from the stubble. There is great risk in kiln-drying any corn for seed, lest by the carelessness of servants, it be so dried as to destroy the vegetating power:—But by keeping the *former* year's wheat in the straw, till seed-time, the kiln-drying is obviated, and the hazard prevented.

I do not remember seeing a single grain of smut, for these last ten years, since I have sown  
old

old wheat, which is, likewise, originally the produce of English seed.

If this be deemed a useful discovery, the public are heartily welcome to it, from,

Sir,

Your humble Servant,

MOSES GRANT.

Nalton, near Haverford-West,

June 18, 1788.

# OBSERVATIONS,

*By the Editor.*

THE subject of this paper is one of the most important, which agriculture and its interests present. I shall not attempt any refutation of any gentleman's ideas on it; but bring to the recollection of my correspondent and the reader certain circumstances which *also* deserve consideration.

There can at present be no question about the right of tithes. The clergy have the same right to this tax which the King has to his land-tax; and the poor to their rates—a right confirmed by the legislative authority of the country.

But that the provision for the church, thus raised, is absolutely inconsistent with the prosperity of agriculture, is a fact no less true; and that no truly flourishing agriculture can ever arise under it is equally obvious.

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United with the commercial policy of this kingdom, in other respects, this tax has made it impossible for agriculture ever to be pursued as a trade;—in other words, for great capitals to be invested in it.

What monied-man would ever think of investing twenty or thirty thousand pounds in the stock of a farm as a commercial project?—Yet we see it every day done in the agriculture of the West Indies, under circumstances of the greatest hazard and insecurity.

I will not assert this to be owing to tithes *alone*; because spots are now and then to be had tithe free; but a short calculation will shew, that upon land subject to them, the thing is impossible.

Suppose 2000 acres bought at 10s. an	} £.	26,000
acre, rent 1000l. per annum, at 26		
years purchase - - - - -		

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And that 15l. per acre is invested to stock it 30,000

Let us suppose that cultivation pays tithe compounded, 12 per cent. for the capital employed.

The common farmer will stock the 2000 acres, probably, at 4l. per acre, or with 8000l. and his profit being 12 per cent. amounts to 960l. per annum.—To yield that profit his annual expenses will probably be 5040l. and the produce 6000l.

But, says the monied-man, I will invest 30,000l. in stock, in order to carry on an opulente culture,  
that

that by its extent may pay for overseers, cashiers, clerks, and book-keepers, like a sugar plantation. His account, tithe compounded, and making 12 per cent. like the other, will be as under:

Annual produce	-	-	-	-	£. 20,000
— expenses	-	-	-	-	16,400
Profit 12 per cent.	-	-	-	-	£. 3,600

Now, suppose the rector changes his mind, and takes his tithe in kind.—The tenth of the produce amounts to 2000l. and if the farmer paid 3s. an acre composition, or 300l. here is 1700l. a-year difference, at once or more than  $5\frac{1}{2}$  per cent. on the whole capital of 30,000l. which would, as effectually, prevent such an investment, as the cudgel of a Turkish bashaw.

I state here nothing impossible, or even beyond what would actually be seen in this kingdom, if our policy had not driven capitals from agriculture, with so much care. The paltry ones of 3, 4, and 5l. per acre, employed at present, are the efforts of men that have no better; or that dread tithes too much to employ them.

Such cases as these prove, clearly enough, that tithes are incompatible with the investment of large sums in agriculture; and consequently are incompatible with the prosperity of agriculture, and if so, with that of the nation. Every man ought to be able to shelter himself with a

modus (as in the case of madder by act of Parliament) that is willing to invest great sums on small tracts of land. The rector should gain something; but not the tenth part of the money I bring from the Bank, in order to improve land in his parish.

A thousand arguments might be used in reply to those of my correspondent, and very obvious ones; but I chuse to establish one great position—that this mode of paying the clergy, is absolutely inconsistent with a commercial investment of capitals in agriculture; if so, I leave to every one to judge, whether the national prosperity ought to be held in chains, for the reasons assigned in my correspondent's memoir.

A. Y.

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## ON THE NECESSITY OF COUNTY ASSOCIATIONS OF THE LANDED INTEREST.

*By the Editor.*

THE history of the internal policy of this kingdom, in relation to trade and manufacture, would be a recital of the injustice and oppressions which have, uniformly, been heaped  
on



on those classes in the community, commonly called the landed interest.

That interest has been sacrificed in favour of the manufacturing, under the specious idea of the benefit and promotion which would flow from encouraging the national industry circuitously to farmers and landlords. The country gentlemen, as Dr. Adam Smith has well explained, with equal liberality of meaning and ease of deception, have always been duped by a set of men much more active, connected and sagacious, than themselves, into the belief that to grant the demands of the commercial classes, was the best way of promoting their own interest. The consequence has been, a century of injurious attacks from every commercial quarter received as so many favours.

But the present age is too much enlightened for this commercial mummary of smoke-ball phrases to pass any longer, without opposition and detection. The ablest political writers, at present in Europe, have, with one voice, condemned those commercial monopolies, which take place no where to such a degree as in England.

The system, as far as reasoning deduced from facts can operate, is compleatly overthrown; but, though defeated in the closet, it triumphs in the profound ignorance of country-gentlemen, in every

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circumstance

circumstance that relates most nearly to their own interest; and in the convenience which Ministers find in gratifying an active, well-informed, combined, and powerful body, at the expence of a disunited, ignorant, slothful, poor and dissipated set. Hence it has been, that though the landed interest, if tolerably united, would be potent enough to crush the whole system of monopolies, which false policy has erected as a mound against the prosperity of the kingdom, in favour of the mere private interest of commercial individuals;—yet so weak, divided, and listless have been the operations of this great body, whenever attacked, that there is no paltry commercial interest, from the bold and pushing adventurers in wool, down to the makers of *felts*, and the retailers of *bay*, but kick this great landed interest into the kennel upon every occasion that offers.

If, as it is advanced by those in Parliament, who seek a plausible pretence for acting equally contrary to their own conscience and their country's interest—this commercial system was for the real advantage of the community, though perhaps injurious to one class only, there would be a cover, at least, to shelter them; but the fact having been proved directly contrary—that such monopolies, prohibitions and restrictions, actually tend as much to impede and shackle the advance of the national manufactures and commerce, as  
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to rob and defraud the land—there remains not a shadow of an excuse for the continuance of such a system; and it remains supported on the plea of convenience alone:—Manufacturers are *combined*, and therefore respectable—the landed interest disunited, and therefore contemptible.

Now, as the late passing of the wool bill, of infamous memory, into law, under such circumstances of neglect in the members of both Houses, as shewed that they could not be brought to think the subject worth attending to;—and while Ministry and Opposition almost ran a race to see who should be the patrons of the manufacturers—it surely greatly becomes those free and independent men, sincere friends to equal law and liberty, that are scattered through the kingdom, to take some measures to resist the torrent of oppression that is for ever breaking down the natural rights and liberties of mankind, not in favour of the monarch, the government, the revenue, or the defence of the community—but to fatten one class of the people with the spoils of another.

Many such men there must be; and the question is, whether they shall continue dead to every feeling of reason and justice, unconnected, inert, and impotent; or, by associations, give effect to just ideas, and take the only step that can possibly render their principles efficient.

The object of such associations, ought to be to diffuse information among those classes of that great desultory body, the landed interest, that are, at present, almost wholly uninformed of their own interest, and know nothing of the attacks that are made on them, till they feel them in the weight of the oppression:—And so lamentably, and indeed contemptibly ignorant, are many of them, that even in the actual situation of suffering, they know neither the cause, nor cure of their evil.

Suppose the manufacturers return again to the charge—and bring in some future bill, to alter, amend, or regulate something omitted in the late one: Who knows what would be the event of the most harmless proposition? At the third reading of that bill, after it had gone through all the forms, a clause was added, appointing sworn winders!—That stroke, which would have been the cruelest blow which the sheep-masters of Suffolk, &c. could have received, would have passed prescriptively, but for the opposition made at the bar of the House of Lords: A proviso, to make it optional, was added. Here, therefore, was an instance of a clause smuggled into a bill, that was not dreamt of by those who opposed it\*.

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\* This fact (which is a manœuvre very common in Parliament), shows how wretchedly ignorant those men are, who would de-  
fist



Had not an opposition been on foot against the bill, that, and twenty others might have been carried. But how are oppositions prompt and decisive

sit from opposing offensive bills when they are amended, and the offensive clauses left out. They do not consider that every one of them, or others ten times worse, can be added in the committee, or even tacked to the bill, by way of rider! not to mention what may be inserted in the House of Lords. Hence, the only safe conduct is, for the landed interest to ask simply, what is the subject of a bill proposed? Wool, corn, hay, &c. Who brings it in?—Manufacturers, corn-factors, London aldermen. To ask another question, is ridiculous. Don't read the bill—don't look at a single clause:—Take it for granted, you are attacked, or will be so, in its progress;—instantly appoint a watch to attend it through both Houses, and give you intelligence of every step that is taken. Give you? Give who? The landed interest?—Scattered here, there, and every where, and collected no where?—Thus, the necessity of a standing association, forces itself on one's mind, at every step.

Where was that interest, in Norfolk, Suffolk, and other counties, asleep when that infamous proposition was permitted, without the least opposition, to become law, which made the helpless, wretched, and half-starved spinner the prey of the wool-men, in the article of false winding, as it is too often falsely and injuriously termed. Wretched Beings are fined five shillings for every offence, with accumulated punishment if repeated, for errors of mere ignorance; fined for not knowing how to reel that yarn which they have been half starved to produce, yet willing to earn something, continue liable to severe penalties, because not able to pay skilful winders. Where were the protectors—the natural guardians of the poor, the landed men, when they suffered, unopposed, such a bill as that to pass? It is natural to reply, and it has been said often, *are there not members in the House of Commons competent to such business?* The answer is pointed and direct; No; there are not. Of what consequence is a man's name being



decisive to attend the passage of such bills, at a heavy expence, if there are no associations through the kingdom, ready to take alarm at the first prospect and rumour of an injury; active to spread the intelligence and alert to repel the attack? It is only by such county associations, concentrated to one focus, by delegates to a national one, at London, that any effective resistance can be made to such attacks as this daring one of wool.

Nor would the advantage lie only in a capability of defence: If the plan was carried into

being in the Red-Book as member for such a place, if such business as the wool bill is to be dismissed for want of 40 to form a House? The wool-growers are taxed three millions sterling, a-year, to the wool monopoly. Is that not an object demanding the attention of their landlords? Poor-rates amount to two millions more, and promise speedily to be four; I have been in the gallery, various times during the last fifteen years, when that business came on, and never failed seeing the House immediately empty. Shall we be told then, that there are members in that assembly, competent to the protection of the landed interest? The assertion is a cruel insult, added to a mischievous neglect. **THERE ARE** members for party, for faction; for Mr. Pitt, and for Mr. Fox: There are members for a superannuated Captain; to roast a Nabob, or screen a Chief Justice: but there are **NONE**, or next to none, for questions on which the interests of land and agriculture depend.

I must confess I loose all patience, when I see the possessors of a rental of twenty millions sterling, a-year, and the occupiers of it with an hundred millions in their pockets, with all the classes that depend on them, driven, for want of union, into the kennel, and trampled under feet there, by a combination of tradesmen.

execution

execution upon those great, enlarged, and liberal principles which look to no other object than freedom from those shackles which an ill-understood policy has forged, and no idea harboured of retorting any injury on the men who have so long been in the habit of inflicting them on others; if every other idea of *party* was shunned, than that noble one of emancipation, it would be impossible that such associations should once be established without increasing most respectably; and accumulating that weight, both in and out of Parliament, which would impede, effectually, the readiness and facility of Ministers to sacrifice, on every occasion, the landed interest, to the rapacity of the manufacturing;—propositions might be made, but they would be listened to with caution.

In starting the hint of such associations, I beg leave to keep entirely clear of any idea of such a plan, depending on high-sheriffs, or members for counties, or what are called leading men in a country. Men who lead, or have great influence in a county, (unless it arises from an overgrown property) derive their consequence from the same arts that disgust us so much in those who lead, and bear sway in higher spheres. Such are much more likely to pay court to manufacturers, than to oppose and detect them: A cause that has true policy, justice, integrity, and

and liberal sentiments for its support, must be lodged in very different hands; or it will be marred, not promoted. Nor is the least sanction of *The Great*, necessary, or even proper.

I would have no dependance placed on those who have, for for more than a century, so scandalously betrayed the greatest and dearest interests of the farming class, which they held *in trust* for the benefit of men who confided in their justice and attention:—To unite, and at the same time remain dependent on such men, would be a mockery and a folly. Doubtless there are, amongst the nobility and commoners of great rank and fortune, some who are inspired with the motives of a very different conduct;—such men binding themselves to the terms of the association, would, become very valuable members.

And as the plan could not depend on the Great taking the lead in it, so ought it not to hang upon the mere weight of numbers. If only three men, in a county, meet, animated with the same pure and laudable intentions, they are competent to lay the foundation of an association: Let them do it, and trust to the justice and integrity of their conduct for becoming numerous. The largest meetings cannot sanctify error; nor the smallest, tarnish the lustre of truth and wisdom.

Objections

Objections to such meetings, on the part of every man connected with Government, are obvious: All sorts of associations give a strength and influence to individuals, of which they are destitute while unconnected; and a Minister, and his dependants, and all who have similar feelings, chuse rather to see every thing defenceless but themselves. An opposition in Parliament, is nothing more than an association for the strength that flows from combination;—but no Minister ever was in love with the most patriotic plan of opposition to his measures:—The very reason, therefore, which makes Administration, and all its tools, hostile to associations, is precisely the great and leading motive which ought to frame, connect, and cement them. That strength and influence which results from combination, is the very object in view, and unattainable but by such means alone. The truth is, if such associations succeed, Government is afraid of them; and that is precisely the point desired. Why does Government, full in the teeth of evidence, reason, and conviction, grant the demands of the manufacturers for the most odious monopolies, but because afraid to refuse them:—they are the demands of a closely combined, and therefore powerful body;—to effect it, they trample on the dearest rights of the landed interest: Why? Because totally unconnected, and therefore weak and despised.

But

But to shew that such combinations for defence, are essentially necessary at this moment, let me insert an extract from the advertisement of the manufacturers at Norwich:

Norwich, July 8, 1788.

“ AT a meeting this day held at the Hall  
 “ in the Market, of the merchants, and the se-  
 “ veral branches of the manufactory, to receive  
 “ the report of the delegates who attended the  
 “ progress of the bill lately passed in both Houses  
 “ of Parliament, “ For more effectually prohi-  
 “ biting the exportation of wool, yarn, &c. and  
 “ also for preventing frauds in the winding of  
 “ fleece wool.

“ JOHN PATTESON, Esq. Mayor, in the chair,

“ Resolved,

“ That Jeremiah Ives, of St. Clement's, Ro-  
 “ bert Partridge, Robert Harvey, jun. and John  
 “ Patteson, Esqrs. Mess. William Herring, Ro-  
 “ bert Powel, John Herring, Joseph Clover, and  
 “ John Taylor, be a committee, to correspond  
 “ with the committees of other manufacturing  
 “ places, and to concert measures for putting the  
 “ laws against the smuggling of wool, &c. into  
 “ execution.

“ Resolved,

“ That it appears to this meeting, that it will  
 “ be necessary to establish a fund for the afore-  
 “ mentioned



“ mentioned purposes, as also for reimbursing the  
 “ Treasurer such monies as have been advanced  
 “ by him; it is therefore recommended to the se-  
 “ veral branches of the manufactory of this city  
 “ and county, to raise such a subscription as may  
 “ be requisite.”

Here is the standard of war raised in the bosom of peace: A committee appointed to correspond with other committees, and subscriptions raised for putting the new law in execution against smuggling, *et cetera*:—That &c. contains the whole pith and marrow of the advertisement. The committee, and the subscriptions, are for giving energy to the washing and winding clause, to which hangs the great object of sinking the price. Thus our enemies continue embodied, with their finances in train: Where is the landed interest to oppose them? The manufacturers have, for one hundred and thirty years, been ever on the advance; one step has been made the preparation for another;—and those fresh taken in the late bill, point directly to a general register of wool; which will inevitably take place in the form of a real excise, paid by the wool-grower, (precisely the proposal of the manufacturers, from 1730 to 1740) if there are no associations ready established, and well supported, long before the attack is actually made. Combination is thus, at the present moment,

ment, in full play and efficiency against the landed interest.—Is it consistent with common sense or common prudence, to remain unconnected, defenceless, and at their mercy?

If it is said, that this appointment of committees among the manufacturers, and raising subscriptions for their support, are designed to enforce only those parts of the new law which are levelled against smuggling;—I reply, that their amendments, which have been so much boasted, are very curious productions, if they depend for execution, on such measures as these. The officers of the Custom-Houses at the ports, insufficient to destroy the clandestine trade, are to be aided by the weavers of Norwich, and the clothiers of Devizes. The clauses of the bill, give all the seizures and penalties to the informers!—Are these manufacturing committees to create those pests of society by bounties and rewards, in order that they may afterwards create the offences that are to feed and support them:—or, to establish order in their finances, that premiums may be dispensed to the profligates, to whom the wool-growers of the kingdom are held out as the right and appropriated prey\*?

With

\* The washing and winding the cots, cals, and comber clause, will, in due time, receive the attention of those committees; and the growers, in every part of the kingdom, (for all are equally included

With such combined and formidable adversaries, earnest, intent, and fixed to their purpose — what opposition can be made without the same spirit of connection, and some portion of the activity that urges the attack? But if the shackles and restrictions—if the open, and unheard-of aggravations of insult, with which the wool bill abounded, were insufficient to rouse men to their defence; how small is the hope that they will associate against the danger of evils not in the actual moment of oppression.

The combination, activity, and vigour, with which the manufacturers attack, and the languor and impotence with which the landed interest defend, were visible enough on occasion of the late bill. Mr. Anstie printed several bulky tracts in favour of the bill, during the contest; the assembly of their delegates ordered impressions of above 2000 of each for distribution. Four tracts were printed also, *against* the bill; of one of these tracts the author printed 1000, half of which he gave away at his own expence; of another, only 250 were printed, and part also given away; of the other two, by different writers, the impressions

included in that clause), will find themselves exposed to prosecutions and oppressions; which in truth they thoroughly merit. The intentions of those who have imposed this yoke on their necks, were explained sufficiently;—but, of fifty-two counties, two only opposed the bill!—Thanks to the stupidity, and unfeeling ignorance of the rest.

were very inconsiderable—none were given away—and most remained unfold. Yet at the very moment those pamphlets were published, a meeting of the Landed Interest, assembled every week at the Thatched-House tavern. A contrast that spoke sufficiently the character of the two parties; union, spirit, exertion, energy, and liberal expence, on one side:—Disunion, languor, apathy, and poverty \* on the other. What was the cause of such a disgraceful difference? Want of connection in the Landed Interest. The delegates of the manufacturers were sent from every quarter of the kingdom; all were animated by the same spirit; and all contributed their quotas to the expence. But on the part of the Landed Interest, only two counties associated, and raised subscriptions to sup-

\* By this expression, I do not mean positive, but relative poverty: A landed man with a large income, who spends the whole, and probably more than the whole, is not poor in various respects; but he is miserably so in various others. The mass of his consumption, and personal enjoyment, will be fifty times greater than those of a tradesman, who commands an equal income: But, this which is wealth—and the only wealth on one side the question, becomes absolute poverty on the other. Come to such a man for any extraordinary expence, and his ability sinks to nothing, on comparison with another, whose habits of life are totally different. The consequence of such a contrast is seen when they come to a struggle: then every expence on one side, is fully and liberally supplied; nothing is omitted for want of money. On the other any thing may be undertaken that does not demand money, and scarcely any thing that does. If there was not more in this, than at first strikes the eye, the whole Landed Interest of Great Britain would not have left the contest to two counties only, whilst more than two stirred in the business, and one actually petitioned.

port



port the opposition: while Norfolk withdrew at the moment of the battle, after having passed resolutions that seemed to pledge her to the fight. Suffex, after stirring at the outset of the business, fell fast asleep; and the East Riding of York passed some unmeaning resolutions, presented a petition, but left others to contest, and to pay. The rest of the counties thought that wool was a matter which no ways concerned them.—If associations, such as I propose, had been established, could this have been the figure, made by the whole Landed Interest of Great Britain?

If such associations had been established, would the tax of 3 millions per annum have been laid on the same interest, by the depreciation of the price of wool?

If such associations had been established, would the land occupier have been burthened with the weight of those poor rates, which the woollen manufacture inflicts without paying?

If such associations had been established, would the *greatest* expenditure of capitals in stocking farms, been left equally liable to ecclesiastical tithes with the *least*—at the very time that the *commercial* agriculture of the West Indies, under the dispensation of the law and religion of this country, was totally exempted from them?

If such associations had been established, would the occupying proprietor of small estates been equally subjected to the land-tax with the great, luxurious, and non-industrious landlord?



If such associations had been established, would the preposterous forms, difficulties, and impediments to inclosure, have been allowed to remain, in order that the culture of wastes might be taxed, to the enormous fees of a mob of chancellors, speakers, clerks, counsellors, solicitors, attornies, and pick-pockets?

If such associations had been established, would commercial taxes be taken off and their weight laid with *commutative* insult and oppression on the landed interest?

If such associations had been established, would the price of rabbits wool have been depreciated 17 per cent. by prohibiting an export that had no existence?

If such associations had been established, would acts pass for preventing the *price* being regulated by the *product* of hay, in order that London aldermen might be drawn from their turtle-feasts by horses fed so much the cheaper at the expence of the farmer?

If such associations had been established, would the rights, liberties and property of all the classes that form the landed interest be every day insulted, attacked and sacrificed at the shrine of some vile mercantile or manufacturing monopoly?

If such associations had been established, would there be the power of extending these queries to a volume, which might be filled with the vexations, oppressions, injuries and contempt, under which that interest crouches?

A. Y.

CURSORY THOUGHTS ON THE POOR.

*By E. Harries, Esq.*

**M**R. Gilbert has my esteem, and he merits the thanks of his country, for his laborious enquiries into the state of the provision and management of the poor, and for the remedies he has proposed to ease the great weight of their support. If his bill does not pass, (and, perhaps, it will not be desirable but in large towns and populous districts) yet good will arise from the spirit of enquiry that he hath raised. It hath produced some useful publications on the subject, and there is now a considerable mass of information before the public, from which a regular, well-digested plan may be established. But to do any good, it must be plain, simple and intelligible.

I entirely agree with the modest and sensible writer in your Annals, (vol. ix. p. 229,) “ that the  
“ out-poor are maintained with more comfort to  
“ themselves, and at a less expence to the parish,  
“ in their small habitations, than in the best regulated Houses of Industry.” I believe the Salop House of Industry stands foremost, in every respect. If my recollection is right, the expence per head, including children, is about 1s. 4d. per week, exclusive of the purchase of the house and other general charges. Now, I am fully satisfied, that with

F f 3

very

very few exceptions, an offer of 1s. a-head per week, will very seldom be rejected, for a maintenance in a House of Industry. If the industrious poor can be supported at an easier rate, in their own homes, I think it cruel, to drag an aged person, worn down by hard labour or sickness, from his accustomed residence, which is so dear to him, to a place he so much dreads. I know, however, that a workhouse is necessary. Without one, many of the poor will be neglectful, clamorous and insatiable, and the parish too much dependant on the magistrate. It is the proper receptacle for the profligate, idle and disorderly poor. The parish workhouses that I am acquainted with, are miserable places; the seat of filth, idleness and dissoluteness. Would it not be eligible to adopt Mr. Gilbert's bill, in part? Suppose, in every hundred, or a certain number of contiguous parishes, there was a workhouse erected, of a suitable size, and with proper accommodations, at a proportional expence, to be estimated by the last returns. The poor to be admitted into it, to be paid for, in proportion to the numbers from the respective parishes. In every other charge the parishes to be separate. From the accounts that have been laid before me, I have found, invariably, that the smaller the parish, the lower the rate. This may arise from the officers in such parishes having a better knowledge of the state and character of the poor, and considering every

every expence as more immediately affecting their own pockets. In large parishes, they endeavour to get over the trouble, which is so irksome to them, as easy as possible, and consider their own contribution as but a drop in the bucket, to the largeness of the expenditure.

There are places, where great advantages may be derived from Mr. Gilbert's plan. But I hope, that small parishes, or situations employed in agriculture only, at a distance from large towns, (which would afford proper directors) may still have separate and distinct interests. If this ceases, indifference, jealousies and disputes will ensue; and it will check the kind and charitable assistance to our indigent neighbours. I recommend, however, that they unite in the erection of a sufficient workhouse, and in the maintenance of such paupers as are best provided for, there. Such an one cannot be extension and managed as it ought to be, without the assistance of the adjacent parishes. Let this be under the direction of those in the commission of the peace—the resident clergymen—a committee from each parish and the overseers, to meet at stated times, and to bear their own expences. I would abolish the payment of house-rent for the poor.—The county rates are more increased than the poor-rates. I shall be glad to see these hints pursued, and freely canvassed.

FRIENDLY SOCIETIES deserve the attention and assistance of the community at large. As it is the



mode that several of the industrious and frugal poor have adopted for their mutual support, it ought to be encouraged and promoted. I would propose that every inhabitant (particularly those that can afford it) join together for this laudable purpose. The rules that are already established, with few alterations, will answer the purpose. Let it be known, that a preference will be given to such labourers as become members of the club—When a servant is hired, let it be a condition; and if he moves to a contiguous parish, that has a club, let his deposit-money be paid to the treasurer—if he leaves the country, let a proportion of his subscription be returned. I hope Parliament will establish them into corporations, with legal authority to enforce their proceedings.

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## ON THE HUSBANDRY OF THE CARSE OF GOWRIE, &c.

*By Mr. James Donaldson.*

Drimmie-House, Dec. 22, 1787.

S I R,

I SHALL, with much pleasure, comply with your request of giving you at least some idea of our husbandry in this corner.—The spot where I at present reside is called the Carse of Gowrie; it contains about 10,000 acres of as rich land as any in the kingdom. It is an exceeding good, strong  
clay



clay soil, not unlike the Fens of Lincolnshire. The medium rent is 40s. per Scotch acre, or about 32s. the English acre. The whole of this rent the proprietor receives, which I apprehend is far superior to what any proprietor in England receives for his lands, except where the local situation enhances the price.—Here, we are 40 miles distance from Edinburgh, and 8 or 10 miles from Perth and Dundee, our two principal markets.—It is, however, within these 30 years, that improvements have been introduced here; since then, indeed, they have been carried on with the most astonishing rapidity.—The means of improvement are, draining, lime and broad clover; for the last, this soil seems extremely well adapted; as in no other country did I ever see such weighty crops. The farmers are bound by their leases to follow a certain rotation of crops. That, at present, which is most approved of, is as follows:

Fallow,  
Wheat,  
Pease or beans, or pease and beans,  
Barley,  
Broad clover,  
Oats.

One circumstance which has happened on Lord Kinnaird's estate within these few months, I shall mention; as it will point out the very great improvements which have recently taken place in this country

country. The residue of five years of a lease of one of his Lordship's farms was purchased by him from the farmer last April; the rent of it, at the time of making the purchase, was 205l.—It was soon after let to another farmer for a rent of upwards of 860l. a-year.—It only contains 305 Scotch acres; so that the rent, per acre, is now 55s. 6d. The lease for 19 years, and the farmer bound to adhere to the abovementioned rotation of crops.

There is a machine for threshing corns, just now about to be introduced into this country, and which promises fair to be a very great improvement.—There are two kinds of them, the one goes by water, the other is worked by a horse, (something in the manner of a mill for beating bark, which you must have seen. Both the machines are made on the same principle; but that which goes by water, on account of the additional velocity and steadiness with which it moves) does nearly a third more work than the other: the one, with the work of two men and a boy, will thresh, and dress fit for market, 20 quarters of wheat, barley, oats or pease, a-day; the other, from 14 to 16.—But what is an object of as much importance to the farmer as saving the expence, is, that the machine is so constructed, that not one grain of corn can adhere to the straw, in passing through this machine.

I understand, the inventor (who lives at about 40 miles distance from this) is now applying for a patent,

patent. There are several of these machines just now erecting in this neighbourhood, though none of them as yet finished;—one of them costs about 40l. But it is imagined that some of the great farmers in this neighbourhood, who will have above 2,000 quarters of grain, will save the expence of the machine in one year, by having their corns clean threshed.

If there is any thing I can do for you in this corner, you may rest assured I will do it with the utmost pleasure. In the mean-time I remain, with much respect,

Sir,

Your most obedient Servant,

JAMES DONALDSON.

A pair of horses, 38l. to 45l.

A ploughman, 8l. and maintenance; which is fully as much.

Maid servant, 3l.

No waggons.

Carts, 7l. to 8l.

A plough, 1l. 10s.

A pair of harrows, 1l.

Day labourers, in summer, 10d.—In winter, 8d.

—In harvest, 1s. and maintenance.

Beef, pork, and mutton, 4d. per lb. each, of 16 ounces, Amsterdam.

Reaping and housing an acre of wheat, barley, or oats, 6s. to 7s.

Threshing wheat, 1s. 8d.—Oats and barley, 9d. to 10d. per quarter,

AN

# AN ACCOUNT OF THE TOTAL PRODUCE OF THE DUTIES OF CUSTOMS:

*Distinguishing, as far as possible, the Gross and Net Produce on every separate Article, the Duty of which has amounted to £.1,000 or more, in the Four Quarters preceding the 5th Day of January 1788.*

	Gross Receipt of Duties.	Drawbacks paid or payable on Exportation.	Nett Revenue, (subject to the Payment of Bounties, and of certain Drawbacks, and also to the Charges of Management.	
Ashes, Pearl	L. 1,028	L.	L. 1,028	
Barrilla	22,050	101	21,949	
Brimstone	11,460	567	10,892	
Bristles, undrest	3,734	91	3,643	
Cork	3,236	56	3,180	
Drugs	Cortex, Peru	6,974	598	6,376
	Ginsang	3,655	1,633	2,021
	Juniper Berries	2,872	12	2,860
	Manna	1,003	47	956
	Quicksilver	2,710	115	2,594
	Saccharum Saturni	1,483	13	1,469
	Senna	1,606	27	1,579
Succus Liquoritiæ	3,908	—	3,908	
Elephants Teeth	3,483	1,523	1,960	
Feathers for Beds	3,878	8	3,870	
Grocery.	Almonds, Sweet	7,938	3,365	4,572
	Coffee	11,700	—	11,700
	Currants	66,716	2,186	64,530
	Figs	3,564	86	3,478
	Ginger	5,010	3,944	1,065
	Nutmegs	1,869	155	1,714
	Pimento	6,220	8,850	
	Prunes	4,191	101	4,089
	Denia	26,720	1,621	25,098
	Lipra	13,514	412	13,101
	Malaga	3,726	34	3,691
	Smyrna	9,190	871	8,319
	Solis	26,822	4,274	22,548
	Rice	8,252	—	8,252
Sugar, Brown	1,114,925	83,643	1,031,282	
			Hair,	

		Gross Receipt of Duties.	Drawbacks paid or payable on Exportation.	Nett Revenue, Subject to the Payment of Bounties, and of certain Drawbacks, and also to the Charges of Management.
		£.	£.	£.
	Hair, Human	1,769		1,769
	Hats, Chip	5,795	455	5,339
	Hemp, Rough	64,188	1,780	62,407
	Incle, Wrought	3,038	104	2,934
	Iron, Bar	122,080	10,774	111,305
	Lemons and Oranges	11,176	172	11,004
	Cambricks	14,899	—	14,899
	Canvas, Hessens	23,047	491	22,555
	— Spruce	14,929	2,197	12,731
	Damask Silesia Tabling	2,119	103	2,016
	Germany, Narrow	59,576	16,054	43,521
	Lawns, Sil. Holl. whited	2,433	663	1,769
	— not Holl. whited	1,514	2,468	
	Broad, above 22½	19,444	1,461	17,983
	Russia. — 31½	3,463	494	2,968
	— 36	20,223	8,352	11,871
	Drilling	4,132	773	3,359
	Narrow	7,689	239	7,449
	Oil. { Ordinary	15,235	2,470	12,765
	— Sallad	4,524	283	4,240
	— Train	5,765	364	5,400
	Pitch and Tar	7,314	129	7,184
	Seeds, Clover	1,592	21	1,571
	Salt, White	1,664	1,921	
	Silk. { Raw	27,497	1,865	25,631
	— Thrown	141,828	4,397	138,430
	— Wrought	3,775	951	2,823
	Bear, Black	6,166	5,657	509
	Calf, Tanned	3,741	—	3,741
	Deer in Hair	12,639	4,158	8,481
	— Indian, ½ drest	1,042	648	393
	Goat Tanned	4,214	—	4,214
	Kid in Hair	2,362	—	2,362
	Martin	7,701	6,276	1,425
	Otter	2,648	2,175	473
	Seal	2,912	12	2,900
	Wolf	4,293	3,501	792
	Smalts	9,218	1,404	7,814
	Spirits, Brandy	63,769	1,654	62,115
	— Rum	39,885	15,223	24,661
	Tobacco	462,540	52,560	409,979

Thread,



	Gross Receipt of Duties.	Drawbacks paid or payable on Exporta- tion.	Nett Revenue, Subject to the payment of Bounties, and of cer- tain drawbacks, and also to the Charges of Management.
Thread, Silks	£. 1,985	£. 144	£. 1,840
Turpentine, Common	8,867	34	8,833
Wax, Bees	4,254	62	4,191
Wine. { French	61,207	6,168	55,038
Port	302,442	7,788	294,654
Rhenish	5,874	630	5,244
Spanish	75,354	21,093	54,260
Bottles	8,693	8	8,684
Wood. { Deals, Ordinary	105,180	7	105,173
Oak Plank	3,704	—	3,704
Staves, Hhd. and Pipe	13,180	661	12,518
Timber, Fir	52,020	3	52,017
Rated East India Goods	255,202	—	255,202
Unrated Ditto	45,195	—	45,195
Tea	134,438	—	134,438
15 & 18 per Cent. Goods	247,990	—	247,990
Sums paid by the Receiver Gen. of the Counties to the Receiver Gen. of the Cus- toms, to make up the Defi- ciency on Tea	214,109	—	214,109
Remittances made by the Re- ceiver Gen. of the Customs in Scotland	70,000	—	70,000
Subsidy rec. on Goods exported	141,676	—	141,676
Amount of Duties received on Coals brought Coastwise	516,666	—	516,666
Amount of Articles accounted for, the Duties whereof upon each have amounted to £1,000 and upwards, on Importation	* 4,866,357	303,216	4,566,981
Amount of the Gross Receipt of the Customs in the Year 1787	4,964,742	Amount of Net Payments into the Exche- quer.	3,714,476
Amount of the Duties of the Articles above accounted for, Brought down	* 4,866,357		852,504
Remains unaccounted for	98,385	Which Sum arises on small Articles, the Duties where- of did not amount to £1,000 on each	

## AVERAGE PRICES OF CORN FOR SEPTEMBER, 1788.

*By the standard Winchester Bushel of 8 Gallons.*

	<i>Wheat.</i>	<i>Barley.</i>	<i>Oats.</i>	<i>Beans</i>
London	5 5	2 7	2 2	2 9

### C O U N T I E S      I N L A N D.

Middlesex,	5 7	2 10	2 3	3 2
Surrey,	5 9	3 2	2 5	3 7
Hertford,	5 8	3 0	2 2	3 5
Bedford,	5 5	2 8	1 11	3 2
Cambridge,	5 1	2 8	1 9	2 8
Huntingdon,	5 0	2 6	1 7	2 7
Northampton,	5 7	2 6	1 11	2 11
Rutland,	5 4	2 8	1 10	2 11
Leicester,	5 7	2 9	1 10	3 2
Nottingham,	5 6	2 7	1 9	2 11
Derby,	6 3	—	2 1	3 4
Stafford	6 0	2 9	2 3	3 0
Shropshire,	5 11	2 9	1 11	4 2
Hereford,	5 2	2 8	1 9	—
Worcester,	6 0	2 7	2 2	3 3
Warwick,	5 8	—	1 11	3 5
Gloucester	5 11	2 8	2 0	3 3
Wiltshire,	5 1	3 0	2 4	3 11
Berks,	5 8	2 10	2 3	3 2
Oxford,	5 9	2 11	2 4	3 4
Bucks,	5 8	2 10	2 1	3 1

### C O U N T I E S   U P O N   T H E   C O A S T.

Essex,	5 3	2 5	2 0	2 11
Suffolk,	5 0	2 4	1 11	2 6
Norfolk	5 0	2 2	1 11	—
Lincoln,	5 0	2 4	1 9	2 9
York,	5 8	2 6	1 10	3 3
Durham,	5 6	3 1	1 11	3 8
Northumberland,	5 1	2 6	1 9	3 8
Cumberland,	6 0	3 0	1 11	3 10

C O U N T I E S

## COUNTIES UPON THE COAST.

	Wheat.	Barley.	Oats.	Beans.
Westmoreland,	6 4	3 2	1 11	—
Lancaster,	6 2	—	2 2	3 4
Chelster,	6 0	2 10	2 1	—
Monmouth,	6 1	2 11	1 11	—
Somerset,	5 7	2 9	2 0	3 9
Devon,	5 9	2 11	1 8	—
Cornwall,	5 7	3 0	1 8	—
Dorset,	5 5	2 9	2 2	3 11
Hampshire,	5 0	2 11	2 1	3 7
Salix,	5 5	2 7	2 0	—
Kent,	5 6	2 8	2 2	2 9
Wales,	5 9	3 1	1 9	4 3
General average	5 6	2 9	2 0	3 3

LONDON PRICES OF CORN FOR  
SEPTEMBER, 1788.

Grain.	Quarters.	Price.	Aver. per Quar.
		£. s. d.	£. s. d.
Barley,	3620	5028 7 5	1 1 4
Beans,	5958	7894 1 0	1 3 0
Malt,	9261	15554 1 10	1 13 4
Oats,	29716	23525 14 0	0 15 10
Peas	2231	3104 10 6	1 7 10
Rye,	329	357 13 4	1 2 3
Wheat,	12320	27290 2 7	2 4 3
	63445	82754 10 8	

COURSE OF EXCHANGE, FOR  
SEPTEMBER, 1788.

Amsterdam	-	38 1 2- $\frac{1}{2}$ U	Leghorn,	47 $\frac{5}{8}$
Hamburg,	-	34 11 $\frac{1}{2}$ -2 $\frac{1}{2}$ U	Genoa,	44 $\frac{5}{8}$
Paris,	-	28 $\frac{7}{8}$	Venice,	48
Cadiz,	-	35 $\frac{1}{2}$	Lisbon,	65 $\frac{1}{2}$
Madrid,	-	35 $\frac{7}{8}$	Dublin,	8 $\frac{7}{8}$

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A N N A L S  
O F  
A G R I C U L T U R E.

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EXPERIMENTS IN AGRICULTURE.

*By Mr. William Macro.*

*(Continued from vol. vii. p. 183.)*

Dear S I R,

**T**HE experiment I have been making, for these two years, or more, with six of the *Norfolk*, and six of the half-bred *Leicestershire* sheep, and which I promised you an account of, is not yet compleat; having killed only two of each stock:—And as I purpose keeping some of the largest of them, till I have taken their coats once more, you must not expect that experiment till next May or June. But if you think the following ones worth notice, they are at your service.

Having tried early and late sowing of barley, in the years 1784 and 1785, I had a mind,  
VOL. X. No. 59. G g the

the following season, to try the same experiment with white oats; and began, by sowing one acre, in December 1785, with one coomb of seed, harrowed in upon a wheat-stubble, with one earth.—Value of land, 10s. an acre.

In January 1786, I sowed exactly another acre, by the side of it, with the same quantity of seed, and dressed the land in the same manner. In February, another acre, the same;—except half a bushel *less* seed. In the beginning of March, I ploughed the remaining part of the piece of land a second time; and, about the middle of that month, sowed it, at the rate of three bushels of seed an acre; ploughing in one cast, or half the seed, and harrowing in the other half; and marked out another acre for the experiment.—This last acre had three clean earths.

Produce of the four acres :		c.	b.	p.
On that sown in December	- -	8	2	0
January	- -	6	3	2
February	- -	6	2	1
March	- -	6	2	2

Or, seed deducted,

On that sown in December	- -	7	2	0
January	- -	5	3	2
February	- -	5	2	3
March	- -	5	3	2*

That

\* This is a very valuable experiment, and the result remarkable; it opens a field for many curious enquiries, that demand multiplied



That sown in December, though it came up thick enough at first, lost so much of its plant, by the winter frosts, that I expected it must have been ploughed up, and sown again in the spring; but observing the plants that were alive beginning to flourish very early, I gave them time; yet it never got to be a full plant, nor did I expect, though the straw was very stout, and the hawes or ears very fine ones, that it would have turned out so well. Those sown in January and February both lost some of their plants, so that that sown in March, *with the least seed*, was the fullest and evenest plant of any.

Having often thought that picking the stones off my turnip lands did more hurt than good, I tried an experiment, last spring, by gathering up all the stones of one square rod, after the turnips were folded off, and laying them equally over another square rod by the side of it, then sowed them with barley, and marked them out; and, at harvest-time, collected them separately, as likewise another square rod by the side of them, which had only the natural quantity of stones.

multiplied and repeated trials. I earnestly hope our ingenious experimenter will, himself, continue these comparisons.

A. Y.

G g 2

Produce

Produce from the rod that had the dou- ble quantity of stones	$\left\{ \begin{array}{l} \text{quarts.} \\ 6 \end{array} \right.$	$\left\{ \begin{array}{l} \text{pints.} \\ 1 \end{array} \right.$	Or, per acre	$\left\{ \begin{array}{l} c. \\ 8 \end{array} \right.$	$\left\{ \begin{array}{l} b. \\ 0 \end{array} \right.$	$\left\{ \begin{array}{l} p. \\ 2 \end{array} \right.$
Ditto from that where the stones were gather- ed off	$\left\{ \begin{array}{l} 6 \end{array} \right.$	$\left\{ \begin{array}{l} 0 \end{array} \right.$	Ditto	$\left\{ \begin{array}{l} 7 \end{array} \right.$	$\left\{ \begin{array}{l} 2 \end{array} \right.$	$\left\{ \begin{array}{l} 0 \end{array} \right.$
Ditto from that, in its natural state	$\left\{ \begin{array}{l} 6 \end{array} \right.$	$\left\{ \begin{array}{l} \frac{1}{2} \end{array} \right.$	Ditto	$\left\{ \begin{array}{l} 7 \end{array} \right.$	$\left\{ \begin{array}{l} 3 \end{array} \right.$	$\left\{ \begin{array}{l} 1\frac{1}{2} \end{array} \right.$

From this single experiment the result is in favour of the largest quantity of stones; and I verily believe it is quite wrong, after the sheep have trod out a great quantity of stones, in feeding off turnips, to have them raked up clean, which I have known some farmers do; nor can the rake be used without taking some of the tath or dung with them.

I, last autumn, tried the experiment again, of sowing old wheat, as likewise new wheat that was gleaned (by a careful hand), without any previous dressing, to prevent the smut; and they are both as free from that distemper, again, as

† This result coincides with various observations that have been made in several of our counties, particularly Hertfordshire, and also in France: the lesson it suggests deserves no slight attention.

A. Y.

possible:—

possible:—for, on the strictest examination, I could not find a single smutty ear on either of the pieces of land; and I have the satisfaction to tell you, that my whole crop is entirely free from that distemper. For my manner of preparing it for sowing, See vol. vi. p. 243.

The wheat sown by the barbary-bush, in my garden, was mildewed again this year, as much as ever; notwithstanding the handful of Spanish wheat you gave me, and which was planted only fifteen yards from it, is a tolerable good sample.

I will now take this opportunity to notice the last line of your note, vol. x. p. 198, viz. “What say your claying calculations of loss to this, Mr. Macro?” Why, I say that you draw your conclusions in too great a hurry.

That Mr. Ducket paid himself *all*, or *any part* of the expence from *that crop*, I *positively deny*. You admit that the rye was sown early, and was *very flourishing* before the clay was carted on; and if you admit, likewise, that the crop of rye was sold for three shillings a-bushel, (which I believe you will) then it yielded only six coombs an acre; whereas it might have yielded, and it would have been no uncommon crop, seven or eight coombs an acre, if the clay had not been carted on at all.

Mr. Ducket could not expect the crop would have turned out as it did; and the lady mentioned, certainly was justified, from appearances,

in thinking as she did. However, some very favourable circumstances which Mr. Duckett mentioned, such as a hard frost that followed, and mouldered the clay to powder;—and a fine season after it, that gave him an opportunity of dressing the land as he pleased, and which might not happen in the winter season, once in twenty years, was all in his favour.

\* The straw might, possibly, have been the length of six feet, if the land had not been clayed; it being well known that rye is not fond of clay, and where a stiff clay rises to the surface, it often will not grow at all; or, if it is sometimes forced by fresh manure, yet the straw is *never very long*. I hope, therefore, you will try and think of some better reasons to prove that the calculations you allude to are erroneous.

I remain,

With great respect,

Your most obedient, and devoted Servant,

WILLIAM MACRO.

Barrow,

October 5, 1788.

*Mr. Macro is much too valuable a correspondent for me to wish any controversy with him;—and all I shall say to his observations here made is,—That a clay soil for rye, and a running sand manured with clay, are two things utterly different;  
also,*

also, that practical farmers clay sands, in order afterwards to sow rye on them ‡;—a clear proof they do not think that clay, in this case, is injurious. In regard to a frost, and fine weather following, Mr. Macro is accurate; but what is there extraordinary in a man's expecting the winter to be attended with frost—or, that frost should be followed by fine weather?

As to the only essential point, Mr. M. cannot forget that Mr. Duckett expressly declared, the first crop paid all the expences \*. I will not argue the question, of the crop being better or worse for the clay, because it must be a question of opinion;—the FACT is, that he clayed the land, expecting profit;—and that the first crop paid all the expences: If this is not a case in point, in favour of claying, I have, in my *hurry*, lost my senses! A. Y.

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## ON A NEW THRESHING MACHINE, &c.

*By Mr. James Donaldson.*

S I R,

I WAS in due course favoured with your much esteemed letter of the 18th of January—to

‡ Mr. Macro thinks not.

\* I had the pleasure of reading this paper to Mr. Macro, and he objects to my statement of this fact; he thinks the Editor misunderstood Mr. Duckett.

G g 4

which



which I would have long since replied, had I not been waiting in hopes of being able to procure you a proper drawing of one of the threshing machines we have got erected in this corner—At last I find myself disappointed in my expectation, as I cannot find a person who will undertake to make a regular drawing of one of them—The inventor's name is Mickle, he lives at, or near Alloa, by Edinburgh; he has lately erected one, to a Mr. Selby of Middletown by Belford, Northumberland, which I am informed, by a gentleman from that country, not only threshes a great quantity of grain in a day, but that it does it to the greatest perfection; the whole expence, wood included, is about 40*l*.—I have considered, with much attention, the rotation of crops which you think preferable in your opinion, to those which I mentioned were adopted in this country—In that chalked out by you, wheat succeeds beans twice in eight years—this rotation would, I dare say, answer extremely well with us, if our climate was as good as yours in Suffolk, but we are much behind hand with you in that respect.

I believe our soil is exceeded by none in the kingdom, though we are not blessed with so warm a climate as you enjoy in the South end of the island. Our bean crops grow so luxuriant, and are consequently so late, that it is only now and then that we can catch the season for sowing wheat after beans.

Those

Those farmers who are not bound by their leases to follow the mode of cropping mentioned in my last, frequently sow wheat after one year's broad clover, with good success: Others, again, sow early pease after their fallow wheat;—this crop is generally off the grounds in proper time to sow wheat. But as this kind of pease, as well as the beans, yields generally a very rich crop of straw, these meliorating crops breed a small white, or rather yellow insect, which is here called a snail, which never fails to prove a very dangerous enemy to the new-sown wheat, on which they feed; insomuch, that the farmer is often obliged to plough up the fields in the spring, and sow barley, after losing all the expense and trouble he had been at in his endeavours to procure a crop of wheat. Whether this insect is peculiar to the strong clay in the Carse of Gowrie—or whether it makes its appearance in all rich, well-dressed lands, I am yet to learn; but I do not recollect ever to have heard of its doing any damage to the wheat crops, till I came to this country:

In answer to your query, “What are the able products of the Carse of Gowrie?” Beans and pease are very uncertain crops—from 2 quarters to 6;—a medium crop,  $3\frac{1}{2}$ .—Wheat, from 4 to 7 quarters—oats, 7 to 8—barley, from 6 to 8. A farmer considers he has a very good crop

crop when his wheat, barley, oats and pease, make 6 quarters per acre, on an average. But, in order to calculate by the English acre, you must reduce  $\frac{1}{3}$  part, for the odds of measurement betwixt a Scotch, and an English acre.

You are extremely welcome to publish any part of my letters in the Annals of Husbandry, which you may think will be of any service in the general cause; though I am much afraid any productions of mine will make a very poor figure there †.

I remain, with much respect,

Sir,

Your most obedient, humble Servant,

JAMES DONALDSON.

Drimmie-House,

May 3, 1788.

## ON THE WOOLLEN, COTTON, AND SILK MANUFACTURES.

*By Mr. Samuel Eaton.*

London, April 30, 1788.

S I R,

**T**HE following rude essay, drawn up in haste, is submitted to your perusal: If the remarks will

† I am much obliged to Mr. Donaldson for this permission; his letters contain particulars truly curious:—The account of the threshing

will be of any use to the truly patriotic cause wherein you are engaged, it will give great pleasure to

SAMUEL EATON.

No. 42, Corn-Hill.

THE manufacturers of wool, in England, have, on all hands, met with greater encouragement and indulgences than any other.

A very large and respectable part of the community have given up their liberty—have voluntarily excluded themselves from a large share of profits that might arise from the exportation of wool;—to which they have as great a natural right as the manufacturers have to the exportation of wrought goods; and might, with equal justice, prohibit the exportation of the latter, under the mistaken notion that they would be clothed at a cheaper rate. I say mistaken notion! because prohibitions have, in the end, a direct contrary tendency, as you have clearly evinced in No. 48, *Annals of Agriculture*, p. 489.

We shall generally find, that if the demand lessens, the produce will, also, soon decrease in proportion, and consequently the price be kept up. But the way to have plenty, and cheap, is to en-

threshing machine is very interesting; and I shall be happy to hear further from this intelligent correspondent, on subjects which the public can never consider as unimportant.

A. Y.

courage

courage exportation;—the demand will soon encrease the produce. Prohibition may, as occasion requires, take place for a limited time; or, till our wants are supplied at home.

From the clamor that is made by the clothiers, on every trifling advance of wool, one would suppose that an addition of 15 or 20 per cent. above par would bring ruin and destruction upon all the woollen manufacturers in the kingdom: when it will be made appear that 50 per cent. advance, is of no great consequence, and would never much depress the manufactories, but is rather a proof of their flourishing state; as wool bears a price in proportion to the demand.

One would suppose, from representation, that 50 per cent. advance on the wool, added 50 per cent. to the amount of the goods:—There would then be some reason for clamor!—But we shall soon see this apparent enormity lessened—this mountain dwindled into a molehill.

Wool, by being manufactured into superfine stockings, is increased into about twelve times its original cost;—and into fine cloth, I believe, about the same; though it is only in the former article that I can ascertain. Thus, 48 per cent. on wool, divided by 12, is only 4 per cent. on the goods: 100 per cent. on wool, is  $8\frac{1}{2}$  on the goods.

Coarse



Coarse worsted stockings are increased about six times: Thus, 48 per cent. on wool, is 8 per cent. on the goods.

If this advance on woollen goods, whenever it happens, could bring destruction to the manufacturer, might we not lately have expected to see the manufacturers of silk involved in like circumstances, from such monstrous additions to the price of their raw material, as to increase the amount of their goods from 50 to 80 per cent.

The former are not content with the most arbitrary, and severe laws, which at present exist in their favour, but from such indulgence, increase in their demands upon the liberties and property of part of the community; and the interest of the nation at large:—like children, the more they are indulged, the more troublesome they are, and the greater are their wants.

How different is the conduct of the silk manufacturer! who, under the opposite circumstances of disadvantageous laws and charters, that militate against them, have lately suffered by an advance of cent. per cent. on the raw material, with scarce a murmur!—They have kept numbers of their hands employed, with scarcely a chance of profit; at the same time, this advance on raw silk falls much heavier on the goods than an advance on wool, even in a sixfold proportion; for in this latter, the workmanship, &c. are  
twelve

twelve times the amount of the fine wool; whereas the silk is two, three, four, and, in some branches, eight times the amount of the labour. Therefore, if wool should advance to 600 per cent. it would only increase the goods in a like proportion to 100 per cent. lately advanced on the raw silk.

	£.	s.	d.
Thus, raw silk that did formerly } cost - - - - - }	100	0	0
Throwing, &c. and making into } hose - - - - - }	110	0	0
	<hr/>		
	£.	210	0 0

If this advances - - - 100 0 0  
it is 48 per cent. advance on 210l.

But some silks that have cost -	100	0	0
In Spitalfields, the workmanship } has only amounted to - }	20	0	0
	<hr/>		
	£.	120	0 0

If this advances 100l. it is 83 per cent. on the goods.

At the present advanced price :

	£.	s.	d.
In working up superfine } wool into hose - }	100	0	0
The workmanship's pro- } fits, &c. - }	1200	0	0
	<hr/>		
	£.	1300	0 0

If,

If, then, wool advances cent. per cent. 100l. is only about 8 per cent. on the goods: viz.  $\frac{1}{13}$ .

An advance of 25 per cent. on fine wool, above par, rarely happens; that is only 2 per cent. on goods.

China silk, a few years ago, was 17s. 6d. in the raw;—a price I have known it at several times: It advanced gradually till it was 35s.—At the last India sale it dropped about 25 per cent.

A more exact and general statement may be made, occasionally, at some future period; (when cotton may be taken into the account) which may shew what manufacturers employ the greatest number of hands, in proportion to the original value of the materials, and are of most national import.

The present, will lead us to conclude as follows:

That a considerable advance in wool is no material detriment to the manufacturer; although of very great benefit to the wool-growers.

The money paid for the advance of wool is not lost to the nation—it has only changed hands, for the general benefit: The more the graziers purses fill, the better they are enabled to carry on their business; and the more they give into the luxuries of dress, the greater is the benefit of the tradesmen and manufacturers.

That

That wool employs a much greater number of hands to manufacture it, in proportion to its original value, than silk; and that the production has already employed our husbandmen;—has paid for the labour of servants, horses, rent and taxes; and all the money has been expended at home.

The money paid for unwrought silk to foreigners, is lost to us for ever:—still it is better, under all these disadvantages, to work up silk than to buy the wrought goods of foreigners; but it is injurious beyond measure to pay them so much more than the article is worth.

The silk manufacturers, in Britain, have shamefully of late, by the enormous price of the raw material! The East India Company acquired such an amazing tea-trade by the Commutation act, that, neglecting to bring the ordinary supplies of silk from China and Bengal, all sorts advanced in price; to the great emolument of the Turkey and Italian merchants, &c. and to the great detriment of our own people.

Whenever the silk trade was bad at Nottingham, it was always attributed to the French underselling us, at foreign markets—and to the importation of French silk hose. But there is no reasonable inducement for their introduction; nor was there, in my memory, any, of consequence, sold by the hosiers and shop-keepers in London! A few have, at all times, been brought

brought over by gentlemen's servants, on their travels; but the bulk of what have been sold for French, have been marked PARIS in the top, and made at Nottingham.

Prize goods have been sold in England; and ignorant adventurers have, sometimes, smuggled, in hopes of extra profit; in which they have always been disappointed.

If the value of the silk and workmanship of each be compared, the English are the cheapest.

Thus, while the laws now in being, are so strictly executed, there needs not any more rigorous; nor is there much inducement for smuggling; for a shop-keeper will not run the risque of being exchequered, and ruined, unless he could buy them at half price.

The French silk hose have neither gloss, shape, or colour; they are pinched in every part that requires time and trouble; and which chiefly conduces to the wear:—Their wages are much higher than ours; for if our men were allowed to make them in their manner, they might afford to take 15 per cent. less than the French\*.

The

\* This is a striking fact; but it applies, powerfully, to other trades: If we are superior to them in silk, without growing one ounce, why not in wool, with the raw material at an equal price? The more the subject of the manufactures of the two kingdoms is agitated, the clearer appears the superiority of England, except in woollens;—yet the wool 100 per cent. cheaper



The merchants in Spain have such a bad opinion of the French goods, that they have always, in my time, had their best silk hose from Nottingham: and notwithstanding their national connection by treaty and family compact, added to the supposed cheapness of the French, the Spanish fleet, which sailed every third year, was always, except in war-time, fitted out with Nottingham silk hose, of a better sort; and at three or four shillings per pair higher in price than what are commonly made for home consumption: . But, I believe, the Spanish orders have been, of late, mostly declined by our manufacturers; the enormous price of silk having precluded them from any chance of profit on such stout goods.

The French have, generally, the advantage in regard to the price of silk;—hence, their hose are sometimes a little heavier for the money. The silk of their own production, is not subject to such variations and enormous increase in the price, as what is worked here!—Their's is not affected by charters and monopolies; and what they import from Italy, and other places, has not a duty of three shillings in the pound weight added to the price, as in England!

here than there! Ought not this to raise strong suspicions that our policy of wool is rotten, and injurious to the fabric?

A. Y.

They

They sometimes buy China silk in London; but they are not saddled with this duty, but have a drawback on exportation, which gives them an advantage over the English, which sometimes amounts to 14 or 15 per cent.

It is true, the English may have a drawback on their stockings when exported—but they are often sent away, with other goods, in quantities too small to pay the expence of a debenture.

For some time past, the silk trade, in every branch, has been bad in England: but does not the gradual advance upon the raw material, from 20, 60, to 100 per cent. sufficiently account for a decrease in the demand:—why need we search for other causes, or impute a superiority and cheapness of workmanship to the French?

Whenever raw silk is reduced, and continued at a proper price, there will be immediate employment for all the hands; for the English will then sell hose full 20 per cent. cheaper than the French, and inconceivably better;—thus command a trade to almost all parts, as the goods of no other country will bear a comparison with them for goodness of workmanship.

The remedy lies chiefly in the power of the East-India Company; for till they introduce a sufficient quantity of China silk, to render it plentiful and cheap, much amendment must not be expected in the silk stocking trade.

The English have little to fear from the French, on the score of manufacturing stockings; although they have as good cotton-wool, and as cheap, from their West-India Islands, as the English; and were they to be as plentifully supplied with our sheep's wool, we should not have the less demand; for both their worsted and cotton hose are so clumsily and shabbily made, that they would be unsaleable in London, at any price. It is on the goodness of the workmanship that the stability of the trade depends.

Some years ago, the manufacturers of Nottingham depended much on sheep's wool, but now it is of very little consequence;—the use of it will soon be needless there, as in most other fine articles that are not heavy. But the use of coarse sheep's wool cannot be precluded by cotton; for its great weight, bulk, and warmth for the money, will always produce a demand for goods made of it; as those requisites will always give it the preference, in cold countries. Home coarse wool may always be cultivated here, with greater safety than fine, as it will continue to be a more staple article.

If our own West-India Islands could produce sufficient cotton-wool for the consumption of this country, at a reasonable price, it would prove as great a national benefit, and employ as many hands to manufacture it, in proportion to its price,

price, as fine sheep's wool.—It ought to be sold here at 12d. or 14d. per pound; and then it would be raised to about twelve times the cost, by manufacturing on the average. But as various monopolizing schemes sometimes raise it to two or three times its real value, and the goods being lowered at the same time, (as soon as made), the consequence proves injurious, and frequently fatal to the manufacturers.

The French have a much less share of commerce than the Britons; and there is no way of excluding them entirely, but by extirpating the people: Some, in this country, might, perhaps, be glad to do it.—Jealousy, on account of foreign commerce †, avarice and ambition, have caused the English to spill more human blood, within these forty years, than any nation on earth.

France may import our sheep's wool!—so they may our workmen: the first alters not, but these immediately become French;—they will make the hose in the French manner, and put in as little work as possible for the money.

† Ambition has had a very little share, indeed, in the business! for the three last wars were totally commercial. We are absolutely indebted to the commercial system for two hundred millions of our debt. We are shackled in the sale of all our raw materials; and then we are told that the commercial and the landed interest are the same.—They ought to be the same; but they are diametrically different.

A. Y.

H h 3

Frame-



Frame-work-knitted hose are made as good, and as cheap at Nottingham, as in the whole world: But if one of the best workmen goes to Dublin, he immediately becomes Irish maker—is subject to an incorporated society, and also under the control of the journeymen in the shop where he works;—these inspect each fresh-comer, and preclude all improvements and additions. Thus, silk hose, made by the same man, at Nottingham, will sell for four or five shillings per pair more in Dublin, than those made by him on the spot.

This will pay the duty or the smuggler handsomely for his risque in conveying them over. English worsted hose pay eight to ten shillings per dozen, duty, in Ireland; and cotton hose 10 per cent.—And notwithstanding this addition to the price, many sell, in preference to their own ‡.

The difficulty of removing a manufactory is inconceivable, and incredible to people in general; for almost every attempt has been attended with ruin to the projectors, and scarce ever succeeds, if managed by the working people;—but alone in the hands of employers, such as understand every minutia of the business, and such as the workmen will submit to, and follow their orders and directions.

‡ These are curious facts.

A. Y.



The employers will not remove with their hands to a distance, while they have a prospect of success in their situation; but when that has ceased, several have removed, as in the Spitalfields trade.

After the terrible riots among the weavers, about eighteen years ago, an act of Parliament was passed, to empower the magistrates of London and Middlesex to fix the prices of work, according to rates approved of by committees of the weavers. In consequence of this, some principal employers removed, with some of the most respectable families, into distant countries, and into Scotland, where they have the work done cheaper.—Hence, the trade of Spitalfields is, in a great measure, ruined; many of the houses going to rack, as may be plainly seen. Abundance of people are out of employment, being deterred by their associates from working lower than the rates fixed;—they have no alternative, but to rob or starve! although they might otherwise have work enough, and the trade would again revive\*.

The picture here delineated would probably, by this time, have suited for the working people

\* This was one instance in a million!—Government never interferes in trade but to do mischief. When are our legislators to be instructed in the true principles of national policy, which, in one word, is to leave every branch of industry to itself. No law—no regulation—no prohibition. A. Y.

in the Nottingham manufactory, if they had succeeded in their petition to Parliament, a few years ago, to fix or raise the price of workmanship, and insure them other advantages. By that means the town would have been greatly injured—the best of the business carried to some distant parts, by the employers themselves.

The workmen ought always to have a price sufficient to make them and family easy, by industry;—they, on the other hand, should remember, that to make their employment lasting, they must do the work as well, and as cheap as elsewhere, or it will of course remove.

It is with manufactories as with nations—they never flourish to their utmost extent, under a load of laws and restrictions!—laws, grants, and charters, favour a few, at the expence of many; and are injurious to the community at large. Arts that will not succeed without the assistance of national restraints (for a longer time than during their infancy), ought, generally, to be dropped, in favour of something more beneficial to the public, as well as to the people employed †.

Restraints should only be laid on foreigners, and foreign articles ‡, while freedom be encou-

† Sound and excellent sense!

A. Y.

‡ Why restraints on foreign articles when you prove the superiority of your own?

A. Y.

raged here, till all the wastes in Britain be cultivated, and every idler employed;—until the increasing wants of the people are plentifully and cheaply supplied with food, as well as wool to employ the manufacturers; and when more is produced than is wanted, let them be as freely exported, till a scarcity makes it necessary to retain them. Thus, by encouraging the growth, as well as the exportation, the danger of a scarcity will be prevented, that might accrue from bad seasons, or other causes ‡. The money returned for the produce would circulate to the benefit of trade, and the employment of manufacturers. The produce of the husbandman's labour is a much less precarious traffic than that of the manufacturer, and money more quickly returned:—provisions are articles that all the world are obliged to deal in—nor can they procrastinate the use; but the use of the other, is matter of choice, and frequently of whim, fashion, or fancy.

Numbers of poor that are now half naked may, on being employed in tillage, procure money to lay out in cloaths for themselves and families.

The cultivation of the wastes, and the production of those articles which are now bought of foreigners, would employ all the people, were they much more numerous than at present, and in a much better manner.

‡ An undeniable position.

A. Y.

It

It is the produce of the lands, and of the hands, that will make a nation truly rich; what is got by foreign traffic, and by the plundering of foreign nations, generally costs more than it is worth.

As many foreign articles as possible ought to be excluded; not so much by prohibitory laws as by promoting and encouraging the production, or manufacturing them in Britain, till they be handed to the public on terms superior, in price and goodness; thus rendering the importation unnecessary:—and if a deficiency of seamen should be the consequence of a reduction of foreign commerce, it may be made up by promoting the fisheries\*.

The power and riches of this nation will not arrive at their zenith, until all the inhabitants are employed—all the lands, as well as the arts and sciences, cultivated to the greatest degree of perfection; a period that is at a very great distance! for this country is capable of numberless improvements, and of employing and maintaining many more people than at present, and much more at their ease, in general. Great additions would be made to the revenues and strength of the nation, and the public burthen much eased

\* But this system would increase foreign commerce, and greatly increase the coasting trade; consequently seamen would be more numerous.

by a tax on land that now pays nothing, and on produce that does not, at present, exist. The expence of colonizing would be avoided, which generally impoverishes and weakens the mother-country, drains it of inhabitants and money, and burdens it with taxes for their support.

The methods of establishing them are cruel, being sooner or later affected by the sword, to which there are few exceptions beside that of William Penn, whose conduct in that respect, if possible, added a lustre to the worthy society to which he belonged.

SAMUEL EATON†.

## ON THE INFLUENCE OF ELECTRICITY ON VEGETATION.

*By M. Ingenhousz, Physician to the Emperor,  
 &c. &c. &c.*

(Translated from the French, by a Friend of the Editor.)

**D**URING the summer of the year 1785, whilst I was shewing some experiments to

† I am much obliged to Mr. Eaton for these very valuable papers; they prove an extent and liberality of mind that do him honour. His further correspondence will be esteemed a favour.

A. Y.

M. Schwankhard,



M. Schwankhard, relative to the influence of artificial electricity upon vegetation\*, and even whilst I was publishing a memoir upon different subjects, in which I confirmed what M. Schwankhard had said about the experiments in which he had assisted at my house; at that time I had not seen the work of M. Gardini, dedicated to the King of Sardinia, which had obtained the prize of the Academy of Sciences of Lyons; it was not until some time after the publication of my letter to Professor Molitor, that with some trouble I at last obtained a copy of it.

At Vienna, in the spring of 1780, I began these enquiries, by placing some jonquils and hyacinths upon an insulated stand, and keeping them constantly electrified during the day, and by placing other similar plants at some distance from the first, without electrifying them: not finding any difference in the growth of these plants, these attempts gave me no positive proofs; they however shewed me, that the effect of electricity upon vegetation, is not so evident as I had believed it to be, from the writings of the philosophers who had established this system; yet I still leaned too much towards the general opinion, to be willing to admit the experiments I had just mentioned, as absolutely contradictory to this doctrine. I repeated

\* He published them in a letter to Professor Ehrmann, inserted in the *Journal de Physique*, de Decembre 1785.

them in the same manner, in the springs of 1782, and 1783, but the result never being conformable to that which other naturalists had constantly obtained from them, I began to doubt the solidity of the received doctrine; I however considered bulbous-rooted plants as improper to fix my determination, by reason of the great difference which is often observed in the progress of their vegetation; three together being seldom found to grow uniformly.

During the summer of 1782, I made use of the seeds of mustard and cress, with which I sowed what might be called floating islands: they were slices of cork, of a few lines thick, wrapped up in blotting-paper or linen; they were big enough to hold from 60 to 100 seeds, at proper distances; these islands floating upon the water, constantly supplied, by means of the blotting-paper or linen, a sufficiency of moisture to make the seeds grow, without giving them too much. I put these floating islands sometimes at the bottom of glass jars, armed with plates of tin, and electrified either positively or negatively; sometimes I placed them upon an insulated stand near the electrical machine, electrifying them constantly by a metallic communication, established betwixt these plants and the primary conductor, constantly electrified. I varied in several ways the method of keeping these plants electrified; some of them may be seen in  
the

the letter before mentioned, of M. Schwankhard, to M. Ehrmann : I took care at the same time, to place at a distance from all electricity, an equal number of comparative experiments, exactly similar to those just described ; the constant result was, that the plants electrified and placed in every particular circumstance the same as the others, did not grow faster than those which were never electrified ; I observed that those which were placed near the electrical machine, grew constantly\* faster than those which were placed nearer to the windows, independently of the electrical force ; for the same accelerated vegetation always took place, whether I electrified those placed near the windows, without electrifying those placed near the electrical machine, or whether I did just the contrary ; in short, in all these experiments, varied in every manner I could imagine, it was evident that electricity had no effect in promoting vegetation ; it was evidently upon the degree of light, and by no means upon the electrical force that the accelerated vegetation depended. No difference could be found in the plants electrified and not electrified, provided they were all placed exactly at equal distances from the windows.

Not content with these experiments, I made some others infinitely more conclusive, by sowing seeds of

\* Is not this a mistake ? It should seem, as he attributes the growth to the light, that the contrary would be the effect. *Transf.*  
mustard

mustard and cress upon the largest earthen dishes I could procure, covered with blotting-paper, and continually watered by a little bandage of cloth dipped in a basin constantly filled with water; each of these dishes was sown with above a thousand seeds. I kept the dishes electrified night and day, in the manner described by Mr. Schwankhard in the letter above mentioned to Mr. Ehrmann. The vegetation of these little forests was always more or less forward in proportion as the plants received more or less light, and electricity did absolutely not at all contribute to accelerate their growth.

I have observed that the light of the sun so salutary to plants of an advanced growth, is very hurtful to the sprouting of seeds, and to the growth of very young plants, for which reason, seeds of mustard and cress, and probably of all other plants, sprout sooner when placed in the part of a room farthest from the windows than when placed near them, and it is probably for want of this attention that an erroneous opinion has hitherto been established upon the cause of the sudden growth of plants which have been electrified.

In experiments of this kind, I sometimes applied to plants a very slight degree of electricity; at other times a much stronger, without having ever been able to find that plants exposed to any degree of electricity whatsoever, prospered more than those which were not electrified at all. It has even appeared,



peared, more than once, that those which had been electrified, were a little backwarder than the others which had not been electrified at all.

Having been informed by several of my friends that my experiments, published in 1785, had made a considerable impression, and had excited a number of philosophers to repeat them and vary them, to obviate the unexpected danger which threatened the system which was no longer doubted of, I have been expecting, with the greatest impatience, the new experiments which were making on all sides, in order to invalidate mine. In the mean time I have been able to discover only one experiment of real importance published since mine; and as that has been thought alone sufficiently conclusive to destroy all those which I had produced, it is my duty to mention it. It is to be found in the work of the celebrated Abbé Bertholon, *Electricité des Météores*, published at Lyons, in 2 vols. 1787. In vol. ii. p. 371, the author says that he has been informed, *by a letter from the Abbé Toaldo (a name long respectable in the republic of letters) that the Senator Quirini has planted behind his country-house, at Altiquiero, a magnificent place on the banks of the Brenta, a row of wild jasmines, which, in two or three years, grew to the height of the first story, covering the whole space from the ground to the cornice;—that two plants of these jasmines which happen to be contiguous to the chain of a conductor, (formed*  
by



by a pole topped with a rod of iron raised considerably above the roof) in the spot where the conductor is carried into the ground, have grown to an extraordinary height; that after two years they were observed to grow above the roof of the house, which is 30 feet, whilst the other jasmines which are cultivated with the same care, are hardly four feet high; that these two plants which have twisted round the pole and chain of the conductor, are three times as thick as the others, and produce flowers earlier, and in much greater quantities: that they continue in flower several days and weeks later. Here, (continues M. l'Abbé Toaldo, in his letter to M. Bertholon,) is the confirmation of what you say in your book, *Electricité des Végétaux*, p. 402,) that plants grow better and are more vigorous round conductors. M. Bertholon, supposing that these two plants of jasmine really received more electric fluid than the rest of the jasmines which composed the row, which I very much doubt, says that nothing can be more decisive than this fine observation.

Although it is not said in this letter of M. Toaldo, that he himself examined this fact, or that he received the account from another person, his name alone forbids all doubt but that this celebrated author considered the account as very accurate, and I consequently ought to consider it so, although some particulars in this letter do not seem sufficiently clear, which probably is owing to want of care in the person who copied it, or translated it.

from the original. For instance, I cannot comprehend how these jasmines had grown, in two or three years, from the ground to the cornice, and yet that these same plants, at the end of two years, were hardly four feet high, whilst the two plants next the conductor had grown above the roof of the house, which is thirty feet high. One of the most celebrated Italian philosophers, who had heard what I had done at Vienna relative to the doctrine of the influence of the electric fluid upon vegetables, wrote to me in the beginning of the year 1786, that he had learnt, with concern, that my experiments were very unfavourable to this system which had been long generally adopted, and the more so, because he had received, from very good authority, a letter, which informed him, *that the Senator Quirini had made several experiments and observations, which do not agree with mine. These experiments, continues he, have been made with aerial electricity, by making the plants communicate with the conductor by thick wires.*

My correspondent does not say, in his letter, whether the conductor, from which the Senator Quirini produced the aerial electricity, was insulated, or fixed in the ground. In the account of the Abbé Toaldo, quoted by the Abbé Bertholon, it appears clearly that this conductor was not insulated ; but it will be readily allowed, that it is by no means indifferent, whether the conductor, from whence the electricity is derived to be conducted

to the plants, be insulated or not, seeing that all the electric fluid obtained from the air, or clouds, and concentrated in the conductor, cannot be dispersed in the ground without having passed through the plant itself; if the conductor, betwixt which and the plants a metallic communication is established, be insulated, whereas a plant which is only contiguous to a conductor, carried deep in the ground, cannot receive an atom of the fluid which passes through the conductor in serene weather.

After having considered the experiment of the Senator Quirini, which does not appear perfectly clear, and which, at least, cannot decide the question, as long as other analogous experiments, repeated and observed with care, have not constantly, and manifestly had the same effects; here is another fact, not less conclusive in all appearance, and which, if it were supported by a sufficient number of analogous facts, would equally decide the question; supposing, always, that the fact itself be well stated, and that the theory which the author adds to explain it, be founded upon the laws of nature. It is to be found in the excellent Latin work, already mentioned, of M. Gardini, p. 119. The author had, twelve years ago, laid some iron wires over the garden of Monks at Turin, to examine the state of the electricity of the atmosphere, in stormy weather. During the three years that these wires remained there, the plants in this garden,

which had always furnished abundance of flowers and fruit, languished, *tabescebat*, and produced no more fruit. The Monks attributing the sterility to the wires which were laid over their garden, took them away; after which the plants recovered the same vigour, which they had had before the placing of the wires, and the produce of fruits and flowers become as abundant as before. From the manner in which M. Gardini relates this singular story, it appears clearly that he trusted to the honesty of the Monks and their gardener; and that supposing it literally true, he attributed the phenomenon to this cause that the wires absorbed from the atmosphere all the electric fluid, which without the wires fertilized the plants. From what I have already observed, and from what I have since seen in trying the same experiment of wires laid over plants, I think myself justified in strongly suspecting that the Monks and their gardener imposed upon Dr. Gardini, and that being apprehensive of danger from these wires during a storm, they removed them, under the false pretence of barrenness in their garden. The same fear which the Monks had at Turin, almost always seizes the neighbours of a house upon which a conductor is erected. I have seen more than one instance of both here at Vienna and elsewhere.

Horizontal and vertical conductors, which are used for electrical observations, are always insulated; for unless they are so, the electric fluid can-

not



not be concentrated for observation \*: but an insulated conductor cannot extract the electricity from the ambient air, any more than a point of metal insulated can exhaust the primary conductor of an electrical machine, towards which it is directed. The horizontal conductor, which I saw at Turin about eighteen years ago, at the house of the P. Beccaria, was perfectly insulated. The theory which the Doctor Gardini gives of the sad effects of these wires, seems to imply that they were not insulated at all: in this case he probably insulated them only during the time that he was making observations.

The following are some experiments which I have made since I saw the work of M. Gardini: I had stretched a copper wire over a part of the botanical garden, in the same manner as the P. Beccaria had practised it at Turin, insulating it at the two extremities. This conductor served to observe the state of the electricity of the atmosphere, and it never came into my head that the presence of this wire could have any influence upon the plants which were growing in considerable numbers under the wire. As soon as I had read the observation of M. Gardini, I made all the enquiries possible, to

\* It is but within these few years, that the celebrated M. Volta, has discovered that a very small quantity of electric fluid may be better condensed in a conducting body imperfectly insulated, as for example, upon a piece of marble, than upon a body perfectly insulated or non conductor. He gives the name of condensator to the apparatus intended for this important experiment.



know whether any person had observed an alteration, either for the better or the worse, in the plants most contiguous to the wire, since it had been placed there ; but no person, any more than myself, had observed any ; and from that time to this we have not observed any thing particular in these plants, although we have been very attentive to what might happen to them.

Besides this conductor, which has always remained in the same place, I stretched a copper wire over another part of the botanic garden, in a more elevated situation. This wire is about 250 feet long, and is insulated at the two extremities, and serves for making the same observations as the first. Under this wire grow several trees and small plants ; not one of them has suffered in the smallest degree.

But as it appears to me sufficiently decided, that wires placed in the air, and insulated at the two extremities, cannot, in any manner, rob the plants growing under them, of the ærial electricity, whilst the weather is serene, I thought I could not better copy the experiment of the Senator Quirini, than by placing metallic conductors upon the trees themselves ; for then all the electricity which might be extracted or condensed in these conductors, must absolutely pass through the tree, to reach the earth. In the month of February 1787, I fixed to the tops of several trees of different kinds, wooden poles, having copper wire twisted round them, the upper extremity

tremity of which, being very pointed, reached about half a foot above the poles, and several feet above the highest branches of the trees. I marked with a number each tree thus furnished with a conductor, and I put the same number upon another tree of the same species, and, as nearly as I could, of the same size. This last was to serve for an experiment of comparison; without this precaution, a person might have decided against the effect of these conductors, by singling out afterwards, among the trees left to themselves, such as would best suit the system he had adopted. I likewise took care that the tree furnished with a conductor, should not touch, with any of its branches, the tree which was to be compared with it. The trees chosen for this experiment were chiefly limes and wild chesnuts. I tried also some plum, pear and almond-trees.—The spring was very cold and late. We had very few fine days during the months of March and April. Rain and snow daily succeeded each other, and were accompanied with piercing cold; so that at the beginning of May scarcely a tree was to be seen whose leaves began to expand. Although in the months of March and April there was no rain accompanied with lightning, yet the conductor by which I made my observations, was almost every day so charged with electricity, that the card which I had placed insulated, betwixt the two metal balls where the conductor was interrupted by

an interval of a few lines, was blackened and pierced with more than fifty holes. Since about the middle of May, the time in which the trees expanded their leaves, until the end of this summer, there were so few storms, that the card was not pierced near so often as it had been during the two months of March and April only.

The result of all these experiments was in general the same as I had obtained from experiments made with artificial electricity. It appeared very clearly that the conductors had not at all contributed to make the trees on which they were placed, expand their leaves or blossoms sooner. I found, indeed, several trees with conductors, forwarder than their companions which had none; but at the same time I found others of the same species as much backwarder than those which had no conductor. Besides, I observed that the forwardest trees of the garden did not happen to be amongst those fixed upon for this experiment. I found among others, in the middle of the garden, a wild chesnut, the tallest tree in the whole garden, which, without a conductor, was the forwardest of them all. If in the month of February I had known this tree to have been a chesnut, I should certainly have fixed a conductor upon it; and in that case the remarkable forwardness of it might have deceived me, if I had contented myself with a single tree to make the observation in question. This remark might, perhaps, explain the phenomenon

phenomenon of the two jasmines spoken of by M. Bertholon.

During the time that I was making these experiments at Vienna, my friend M. Van Breda, Counsellor to the Government of the city of Delft, in Holland, made similar ones at my request. He obtained from them the same result ; namely, that the plants which happened to be under his horizontal conductor, discovered no difference either for the better or the worse ; and the trees which had pointed metallic conductors fixed upon them, did not put forth their leaves and flowers earlier than the other trees of the same species which had no conductors.

In the summer of the year 1786, I made, amongst others, the following experiment: I set up a post in the botanical garden, high enough to reach eight or nine feet above the tops of the trees, which grew nearest to it. On the top of this post I fixed a copper wire, the point of which, drawn very fine, was more than a foot above the top of the post ; from this copper wire I brought down four other copper wires, at equal distances ; I fastened each of these four wires to a wooden stake, twisted round with copper wire, and sunk some feet into the ground : these four stakes, forming a square, left a quadrangular space, sown with *calamintha montana*, which were then very small plants. From the ends of these stakes, which stood about three feet



feet out of the ground, I laid, horizontally, other copper wires, to inclose this square interval: these wires stretched from one stake to another, communicated, besides, with a great number of other wires, which were at all times strained over the plants, and in the same manner laterally; so that the plants contained in this square, were, in a manner, inclosed in a net-work of wire, like a bird-cage. This cage, or net-work, had no immediate communication with the plants of *calamintha montana*, and consequently, all the electricity, which the pointed extremity of the vertical conductor could receive from the atmosphere, was conducted immediately into the earth, and the plants could not, therefore, receive any of it.

In order to keep off all electricity from the plants inclosed in this wire-work, I fixed a thick bar of iron deep into the ground, at the distance of some feet from the wire-work, betwixt which and this bar, I established a metallic communication. I believe, that if it be possible, in the open air, to keep off all the electrical fluid, from plants, a more likely method of effecting it cannot possibly be found, than that which I have just described; at least, I think it more efficacious than that which was used in the Monk's garden at Turin.

The result of this experiment also agreed entirely with what I obtained from the other experiments already mentioned. The plants deprived in this manner



manner of all electrical influence, grew, flourished, and seeded exactly in the same manner as all the other plants of the same kind, which were growing in different parts of the garden.

This experiment, which was an imitation of that described by M. Gardini, gave me at the same time an opportunity of observing the effect of vertical conductors, upon plants which are in contact with them, and which M. l'Abbé Bertholon looks upon to be absolutely decisive. This wire-trellis having no immediate communication with the plants of *calamintha montana*, was, notwithstanding, in contact with several other plants of different kinds, and the bar of iron fixed into the ground, at the distance of some feet from the trellis, happened to be in the midst of plants, some of which even twisted themselves round the bar: these different plants were therefore in the same situation as the two wild jasmines, in the garden of the Senator Quirini; the plants, nevertheless, were neither earlier or later than other plants of the same kind, which happened to be in other parts of the garden.

I also made the following experiment, this summer: I filled four of the largest flower-pots I could find, with very good mould:—I sowed in each of them fifty grains of mustard-seed, at equal distances.—I placed each of these pots in an earthen basin, which was always kept full of water;

water; by which means all watering was avoided. In two of these pots I fixed a stick, about four feet high; the top of this stick supported a ring of metal, from which I conducted a great number of copper wires, which diverging, terminated in a large hoop of a cask laid upon the ground, in the centre of which the pot was placed. I stuck a pointed iron into the ground at the edge of the hoop, to conduct the electricity which should pass through this metallic apparatus: by these means the plants and the pots were sheltered from the electricity of the air; at least much more than were the plants in the garden of the Monks at Turin, which grew under the iron wires strained over the garden. I did nothing to the other two flower-pots that were to make the comparative experiment.

The result of this experiment also agreed with that of all the others: no difference could be seen betwixt the plants in the four pots.

I had, besides, placed in another garden, two similar pots, each containing fifty grains of cress-feed:—One of these pots was covered with a wire trellis. No difference could be observed in the quickness of vegetation of all these plants.

I will finish this paper by observing, that from all these experiments I do not, by any means, draw a conclusion, that the electrical fluid has no influence whatsoever upon the vegetable kingdom;

dom; but they appear to me to deserve some attention, if it be only to shew that the experiments hitherto alledged to establish the doctrine, that electricity, whether natural or artificial, manifestly accelerates vegetation, have not all that authenticity which has been attributed to them; and that consequently the track which was believed to be already explored, must be a little deviated from, to seek for new roads which lead to truth:—they will, at least, incite other naturalists to imitate them, or to invent new ones, in order to judge whether, or how far I have been deceived in my observations.

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MINUTES CONCERNING THE PARISH  
OF BARNHAM, IN SUFFOLK.

*By the Editor.*

**T**HE parish of Barnham, near Euston, contains 5302 acres; viz.

*In 1764.*

Infield arable, inclosed	-	381
Outfield arable	-	2626
Meadow and pasture	-	559
Heath, or sheep-walk	-	<u>1735</u>
Total	- - -	5302

And

And consists of four farms.—The whole belongs to his Grace the Duke of Grafton, to whom I am obliged for these particulars. There are 3300 sheep in it, 60 cows, and 43 horses.

The course of crops in the outfield-land :

1. Turneps,
2. Barley, or light oats,
3. Ray-grass for four years,
4. Rye, on three earths.

In the infield-land :

1. Turneps,
2. Barley,
3. Trefoil or clover, (but little of the latter) for one year, in general; but some for two.
4. Rye.

Mr. Burd, one of the four farmers, spreads his manure for turneps; but the others for seeds on the barley-stubble.

Land-tax	-	101l. 2s.	£.
Poor-rates in 1764	-	-	53
1765	-	-	41
1767	-	-	45
1787	-	-	131

Windows in the assessment - - 94

Houses appearing on the duplicates . 9

But this number being very small, for a village which I recollected had quite another appearance, I counted, and found them to be 46.

Hence,

Hence, whatever examination a political arithmetician could make at the Tax-office to discover the population of this parish would give him not more than the number 45 souls, at 5 to a house, but the fact is, there are at that ratio 230, or nine times as many.

*Parish Register.*

	Baptisms.	Burials.	Incr.
In 14 years, from 1731 to 1744	112	92	20
In 14, from 1745 to 1758	76	56	20
In 14, from 1759 to 1772	115	104	11
In 14, from 1773 to 1786	145	98	47

This rapid increase of population in the 14 last years, ought to be attributed to some clear and manifest cause, it is very general in this county; but I know not to what peculiarly to assign it.

A vast improvement upon the outfield land of this parish would be to add a good portion of burnet and rib-grass, to the ray, with which they lay down for four years.

A. Y.

ACCOUNT OF A FLOCK OF SHEEP.

*By W. W. Knight, Esq. of Ruscombe near Maidenhead, Berks.*

AS a purchaser of your entertaining Annals, I thought I would send you this trifling account of a flock of sheep.

160 we-



	£.	s.	d.
160 wether lambs, bought at Wilton fair, in Wiltshire, Sept. 12, 1783, at 12s. 3d. per head	-	-	98 0 0
Expence at fair, &c.	-	-	2 0 0
At 12s. 6d. per head, is	-	-	100 0 0
Paid a man, who could do no other work, as shepherd, 5s. per week; a year	-	-	13 0 0
Sept. 12, 1784, a year's interest of 100l.	-	-	5 0 0
Ate, in the winter, 25 acres of turneps, at 20s. per acre, (selling price was 25s.)	-	-	25 0 0
Pease, haum, barley, straw, hay, &c.			10 0 0
1785, 20 acres of turneps,	-	-	20 0 0
Hay, &c. &c.	-	-	10 0 0
Year's wages, shepherd	-	-	13 0 0
Interest	-	-	5 0 0
1786, (no turneps) 3 tons of hay, at 4l.	-	-	12 0 0
Paid for grafs, to make them fit for sale, in a park, at 2s. 6d. per score, per week	-	-	7 0 0
1786, shepherd	-	-	13 0 0
Year's interest	-	-	5 0 0
This last summer bought in 20 wethers, at 24s.	-	-	24 0 0
In all			162 0 0
160 lambs cost	-	-	100 0 0
Total	£.	262	0 0
			Wool

# A G R I C U L T U R E. 479

	£.	s.	d.
Wool, 52 tods, at 21s.	-	54	0 0
Folding about 40 acres, in the three years dung made in pen, in winter, worth	- - - -	40	0 0
Received, Nov. 13, 1786, at Kingston fair, (having no turneps to fat them, all gone by the fly) for 170 sheep, at 25s. per head	- -	212	10 0
		<hr/>	
Received		306	10 0
Total cost		262	0 0
		<hr/>	
Remains profit*		44	10 0
		<hr/>	
Ten lambs died, at 12s. 6d.	-	6	5 0
		<hr/>	
Total		£. 50	15 0
		<hr/>	

Farm about 200 acres; commons and fields to run over about 300 acres.—Three other flocks kept in the same parish.

The price we had for wool this year was 24s. per tod, about 3½lb. per fleece. I sell my wool

\* £44 profit on 160 sheep (for those kept only part of a summer should not be reckoned) amounts to 5s. 6d. per head, to which should be added 22l. of the cost of the shepherd, which would make the profit 8s. 3d. a-head: If Mr. Knight had had double the number, or even more, the same shepherd would have done equally well. This 8s. 3d. is to pay for the summer food of near 3 years, from hence it should seem he lost considerably. The summer food is a point I wish Mr. Knight would have the goodness to explain.

A. Y.

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K k

to

to the woollen-draper, so know nothing about spinning. Windsor Forest Little Bagshot sheep's wool sold at 1s. per lb. about 1lb. or 1½lb. to a fleece, uncommonly fine. I could have sent you an account of a sow which has brought me 105 pigs, and is now in pig again, but thought it too trifling to trouble you with\*. I have lately read your Tours, but was sorry to see, in your Northern tour, that you have taken no notice of breeding horses.

I am, Sir,

Your very humble Servant,

W. W. KNIGHT.

*Account of 5 Cart-horses, bought in the year 1776 :*

	£. s. d.		£. s. d.
December 11, 1776, at		May 22, 1788, at Hen-	
Abington fair, bought		ley fair, was offered	
a black cart-horse, 9		for the first horse, aged	
years old, at - - -	25 0 0	17 years - - - -	16 0 0
Same day, a chefnut		For the second, aged	
ditto - - - - -	13 0 0	17 years - - - -	13 0 0
Black horse ditto - -	13 10 0	For the third, aged 17	15 0 0
Black horse, 6 yrs old	16 0 0	For the fourth, aged 18	17 0 0
Ditto, 4 years old - -	12 10 0	For the fifth, aged 16	13 0 0
		(All found and well.)	
Total £.	70 0 0	Total £.	74 0 0

The occasion of my offering these horses for sale was, I had thoughts of buying in some colts, but

\* By no means trifling ; I wish a particular account—breed—food—management, &c. A. Y.

as I could get none under 27l. or 28l. a colt, I thought it best to keep on the old ones.

A neighbour sold a horse at Henley fair, May 22, 1788, at 23 years old, (bought at the same time as mine) for 18 guineas; bought in at 13 guineas.

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*A BILL for the due making of Flour of Wheat; and to regulate and ascertain the Sorts, Goodness, and Prices thereof, wherever the Regulations for ascertaining the Sorts, Goodness, and Prices, of Bread made of Wheat do take place.*

*(Brought in by Governor Pownall\*.)*

**W**HEREAS an assize of bread made for sale hath been, according to the ordinances and laws of the Realm, from time immemorial established:

And whereas, through default in not describing the several sorts of meal or flour whereof such bread is supposed to be made, the said laws have never (except in the case of standard wheaten bread) as yet described the sorts and goodness of the bread which they have ordered to be made, in exclusion of all other sorts, and to which they have affixed a price, or on which they have set an assize:

\* See vol. ix. p. 618.

And whereas no laws do as yet exist, which do prescribe any rules or regulations, by which the due making of flour, and the due selling of the same, at such prices (in proportion to the price of the grain from whence it is made) as may render the making of bread for sale practicable, according to the price of the grain of which such bread is made; from all which causes the laws respecting bread made for sale have been ineffectual and impracticable, or, where they have been attempted to be carried into execution, have, at times, become an oppression on the baker, and a deception on the public, to the great injury of the poor, the labourer and manufacturer more especially: for remedy whereof,

May it please your Majesty,  
That it may be enacted; and be it enacted by the King's Most Excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, that from and after the twenty-ninth day of September, One thousand seven hundred and seventy-six, the flour of wheaten meal, being, without any mixture or adulteration, the whole produce of the wheat, dressed either through a thirteen shilling bolting cloth, made of woollen yarn, six feet in length, and six feet seven inches in breadth at the head, or thereabouts, and six feet, nearly,  
broad



broad at the tail, consisting throughout of thirty-two threads to an inch in the warp, and of twenty-eight threads to an inch in the shoot, and weighing, when new, one pound; or through a wire bolting machine of about six feet in length, the wire work of which to consist throughout of forty-two wires to an inch square, and to weigh at the rate of one ounce and one dram to every six inches square; shall be held and deemed to be STANDARD WHEATEN FLOUR: and that when the standard wheaten flour shall be divided as follows (that is to say) by a bolting mill, either through a twenty-one shilling bolting cloth, made of woollen yarn, six feet in length, six feet seven inches in breadth at the head, and six feet broad at the tail, and consisting throughout of sixty-four threads to an inch in the warp, and of fifty-two threads to an inch in the shoot, and weighing, when new, one pound, with the partition of the bolting mill placed at the distance of three feet seven inches from the head thereof, then such part of the said flour as shall pass through the said one-and-twenty shilling cloth, between the head and the said partition (which is to be one half, or nearly, of the said standard wheaten flour aforesaid) shall be called and deemed to be the BEST WHEATEN FLOUR; and the remaining part and moiety thereof, which shall in the said dressing pass through the said cloth below the said partition, placed as aforementioned and directed.

shall be called and deemed to be **HOUSEHOLD WHEATEN FLOUR** : And when the standard wheaten flour as aforesaid shall be divided, for the making therefrom the best wheaten, and household wheaten flour, by dressing it through a wire bolting machine, and shall be done in the following manner (that is to say) through a wire machine of about six feet in length, consisting of fifteen divisions of wire work of equal breadth, of which the six first divisions from the head of the machine to consist of wire work of fifty-four wires to an inch square, and to weigh at the rate of one ounce to every six inches square, and the remaining nine divisions to consist of wire work of forty wires to an inch square, and to weigh at the rate of one ounce and one dram to every six inches square, and the partition of the bolting mill to be placed at the fifth division from the head of the machine, then the flour so dressed, which shall pass through the wire in the upper part of the machine, between the head thereof and the said partition, being one half, or nearly, of the whole flour, shall be held to be, deemed, and called, **BEST WHEATEN FLOUR**; and the remaining moiety, which in the same dressing shall pass through the wire below the partition, shall be held to be, deemed, and called, **HOUSEHOLD WHEATEN FLOUR**.

Provided always (any thing herein contained to the contrary notwithstanding) that flour, the produce

duce of wheat only, without any adulteration or mixture, howsoever it shall be dressed, if upon examination and comparison, as hereafter directed, it shall satisfactorily appear to be respectively of equal goodness and fineness to any of the sorts above described and named, in their respective degree, may be offered to sale, or sold, or used by the bakers and others, for and in lieu of such sort respectively, being flour of wheat of equal goodness.

And in order and to the intent that, whenever an assize shall be set on bread made of wheat according to the price of wheat, the flour of wheat may bear, in the said market or place where such bread is so assized, a price proportionate to wheat; be it further enacted by the authority aforesaid, that all and every magistrate, magistrates, or others, who by the laws in being are authorized to set an assize on bread, and who shall so set an assize thereon, are hereby authorized and required (otherwise the assize set on bread shall be null, void, and of none effect) to set at the same time an assize on flour made of wheat, according to the sorts and prices herein respectively in the table following set down.

A TABLE, shewing the prices that standard wheaten flour, and the best wheaten flour and household wheaten flour, ought respectively to bear to the average market price of wheat (exclusive of the magistrate's allowance for baking) from 2s. 9d. to 14s. 6d. per bushel, Winchester measure: Computing 42 pounds of standard wheaten flour to be equal in price to a bushel of wheat, as that quantity of the said flour will make as much bread as the law requires from a bushel of wheat; and calculating the best wheaten flour to be one-eighth more in price, and the household wheaten flour one-eighth less in price, than the standard wheaten: So that the prices of the best wheaten and household added together, will come out the same per sack as the standard wheaten.

Wheat		Flour.							
Per Bushel, Average Price, exclusive of the Allowance for Baking.		Standard Wheaten.				Best Wheaten.		Household.	
		Per Bushel of 56 pounds.		Per Sack of 280 pounds.		Per Sack of 280 pounds.		Per Sack of 280 pounds.	
s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
2	9	3	8	18	4	20	11 $\frac{1}{4}$	15	8 $\frac{1}{2}$
3	0	4	0	20	0	22	10 $\frac{1}{4}$	17	1 $\frac{3}{4}$
3	3	4	4	21	8	24	9	18	7
3	6	4	8	23	4	26	8	20	0
3	9	5	0	25	0	28	6 $\frac{1}{4}$	21	5 $\frac{1}{4}$
4	0	5	4	26	8	30	5 $\frac{1}{2}$	22	10 $\frac{1}{2}$
4	3	5	8	28	4	32	4 $\frac{1}{2}$	24	3 $\frac{1}{2}$
4	6	6	0	30	0	34	3 $\frac{1}{4}$	25	8 $\frac{3}{4}$
4	9	6	4	31	8	36	2 $\frac{1}{4}$	27	1 $\frac{1}{2}$

TABLE continued.

Wheat		Flour.							
Per Bushel, Average Price, exclusive of the Allowance for Baking.		Standard Wheaten.				Best Wheaten.		Household.	
		Per Bushel of 56 pounds.		Per Sack of 280 pounds.		Per Sack of 280 pounds.		Per Sack of 280 pounds.	
s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
5	0	6	8	33	4	38	1	28	7
5	3	7	0	35	0	40	0	30	0
5	6	7	4	36	8	41	10 $\frac{1}{4}$	31	5 $\frac{1}{4}$
5	9	7	8	38	4	43	9 $\frac{1}{2}$	32	10 $\frac{1}{2}$
6	0	8	0	40	0	45	8 $\frac{1}{2}$	34	3 $\frac{1}{2}$
6	3	8	4	41	8	47	7 $\frac{1}{4}$	35	8 $\frac{1}{4}$
6	6	8	8	43	4	49	6 $\frac{1}{4}$	37	1 $\frac{3}{4}$
6	9	9	0	45	0	51	5	38	7
7	0	9	4	46	8	53	4	40	0
7	3	9	8	48	4	55	2 $\frac{3}{4}$	41	5 $\frac{1}{4}$
7	6	10	0	50	0	57	1 $\frac{1}{2}$	42	10 $\frac{1}{2}$
7	9	10	4	51	8	59	0 $\frac{1}{2}$	44	3 $\frac{1}{2}$
8	0	10	8	53	4	60	11 $\frac{1}{4}$	45	8 $\frac{1}{4}$
8	3	11	0	55	0	62	10 $\frac{1}{4}$	47	1 $\frac{1}{4}$
8	6	11	4	56	8	64	9	48	7
8	9	11	8	58	4	66	8	50	0
9	0	12	0	60	0	68	6 $\frac{1}{4}$	51	5 $\frac{1}{4}$
9	3	12	4	61	8	70	5 $\frac{1}{2}$	52	10 $\frac{1}{2}$

TABLE



Wheat		Flour.							
Per Bushel, Average Price, exclusive of the Allowance for Baking.		Standard Wheaten.				Best Wheaten.		Household.	
		Per Bushel of 56 pounds.		Per Sack of 280 pounds.		Per Sack of 280 pounds.		Per Sack of 280 pounds.	
s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
9	6	12	8	63	4	72	4½	54	3½
9	9	13	0	65	0	74	3¼	55	8¼
10	0	13	4	66	8	76	2¼	57	1¼
10	3	13	8	68	4	78	1	58	7
10	6	14	0	70	0	80	0	60	0
10	9	14	4	71	8	81	10½	61	5¼
11	0	14	8	73	4	83	9½	62	10½
11	3	15	0	75	0	85	8½	64	3½
11	6	15	4	76	8	87	7¼	65	8½
11	9	15	8	78	4	89	6¼	67	1¼
12	0	16	0	80	0	91	5	68	7
12	3	16	4	81	8	93	4	70	0
12	6	16	8	83	4	95	2¼	71	5¼
12	9	17	0	85	0	97	1½	72	10½
13	0	17	4	86	8	99	0½	74	3½
13	3	17	8	88	4	100	11¼	75	8½
13	6	18	0	90	0	102	10¼	77	1¼
13	9	18	4	91	8	104	9	78	7

TABLE

TABLE *continued.*

Wheat		Flour.							
Per Bushel, Average Price, exclusive of the Allowance for Baking.		Standard Wheaten.				Best Wheaten.		Household.	
		Per Bushel of 56 pounds.		Per Sack of 280 pounds.		Per Sack of 280 pounds.		Per Sack of 280 pounds.	
s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
14	0	18	8	93	4	106	8	80	0
14	3	19	0	95	0	108	6½	81	5½
14	6	19	4	96	8	110	5½	82	10½

And be it further enacted by the authority aforesaid, that standard wheaten bread, made for sale, shall be made of standard wheaten flour, as herein before described and required to be, without adulteration or mixture of the flour of any other grain, or of wheaten flour of equal goodness, compared with, and according to the samples hereinafter directed to be lodged with a magistrate for the purpose of so comparing it; also, in like manner, that wheaten bread, made for sale, shall be respectively made of the best wheaten flour, as herein before described, without any adulteration or mixture of the flour of any other grain, or of wheaten flour of equal goodness, compared with and according to the sample of the best wheaten flour herein after directed, to be lodged with a magistrate for the purpose

purpose of so comparing it; also, in like manner, that household bread shall be made of household wheaten flour, as herein before described, without any adulteration or mixture of the flour of any other grain, or of wheaten flour of equal goodness with, and according to, the respective samples herein after directed to be lodged with a magistrate for the purpose of so comparing it.

And be it further enacted by the authority aforesaid, that from and after the said twenty-ninth day of September, One thousand seven hundred and seventy-six, the magistrates and others impowered by law to set an assize on bread made for sale, shall (whenever they think fit to set any assize, or to fix the price, of bread of wheat made for sale) set such assize, or fix such price (the baker's allowance included, as by law directed) according to the price of wheat only, any thing contained in any law heretofore made to the contrary notwithstanding.

And to the intent that all and every magistrate, magistrates, and others, who shall set an assize on bread and flour as herein before directed, may have a rule whereby to judge whether the flour and the bread, on which he or they do so set an assize, is and are of such sort, or of equal goodness to such sort respectively, as the law requires and directs, and that he or they may be enabled duly to perform the several matters and things as by law authorized and required, and more especially as herein directed; be it hereby further enacted, that all and every

every magistrate, magistrates, and others authorized and impowered to set an assize, and who shall have so set an assize as herein afore directed, is and are hereby authorized and required to issue at the same time, and in like manner, an order to all and every the bakers, or their attorney appointed in manner herein after mentioned, within the district of his or their jurisdiction, to deliver to him or them samples of the best wheaten flour, of the standard wheaten flour, and of the household wheaten flour, made and dressed according to law, and in quantity not less than a quarter of a peck, to the due making which said samples, each baker, or his or their attorney, delivering the samples afore-said shall swear, or being one of the people called Quakers, shall solemnly affirm, in the form following :

“ I

“ do swear, (or solemnly affirm) that the several samples of the best wheaten flour, of the standard wheaten flour, and of the household wheaten flour, now here by me delivered, are each severally and respectively of the flour of wheat only, without any adulteration or mixture, and were dressed from wheat weighing per bushel, in manner as the law requires and directs; and that no separation of the finer parts of either of them hath been made,

“ made, nor any mixture of any coarser sort  
 “ added thereto, since they were respectively  
 “ so dressed as aforesaid; but that they are  
 “ each respectively, really and *bona fide*, the  
 “ best wheaten flour, standard wheaten flour,  
 “ and household wheaten flour, such as the  
 “ law requires, and none other.

“ So help me God.”

And every such baker within said district, unless  
 he shall agree with other bakers in the said dis-  
 trict to appoint, under his and their hand, some  
 person duly authorized, as his and their attorney  
 (which he and they are hereby impowered to do)  
 to deliver in such samples as aforesaid, on his  
 and their part and behalf, and unless such person  
 so appointed shall duly, and in like manner as  
 herein directed, deliver in such samples as afore-  
 said, is hereby required and directed to deliver  
 in to the said magistrate, magistrates, or others,  
 as aforesaid, such samples, and in such manner,  
 as herein directed, within the space of ten days,  
 under the penalty of ten shillings for the first  
 offence, and also of the further penalty of twenty  
 shillings for each and every other like offence, to  
 be inflicted, recovered, and applied, in manner  
 herein after directed.

And be it further enacted, that in such cities,  
 towns, or boroughs, where there is and are, or  
 shall be, established companies of bakers, being  
 bodies



bodies corporate, the magistrate, magistrates, or others authorized by law to set an assize within the district of the liberties of such city, town, or borough, whenever and wherever he or they shall so set an assize as herein before directed, within the district or districts, or any part thereof, of his or their respective jurisdiction, is and are hereby empowered and required to issue at the same time an order to the respective company or companies of bakers, within such district or districts, requiring them to make, or cause to be made, and to deliver to him or them, samples of the best wheaten flour, of the standard wheaten flour, and of the household wheaten flour, made and dressed according to law; and each company, being a body corporate, are hereby required and directed (by such person or persons as they, under the common seal of their corporation, shall appoint) to make or cause to be made and dressed according to law, samples of the best wheaten flour, of the standard wheaten flour, and of the household wheaten flour, and to deliver the same within the space of seven days after the receipt of such order as aforesaid, in quantities of each not less than one peck; which person so appointed, upon delivering the same, shall make oath, or being of the people called Quakers, solemnly affirm, in form and manner as herein before directed: And if such company shall not, within  
seven

seven days after the receipt of the order as aforesaid, appoint such person for such purpose as aforesaid, or shall not by such person, so and in like manner as herein directed, deliver in such samples as aforesaid, each such company receiving such order shall for the first offence forfeit ten pounds, and also the further penalty of fifty pounds for each and every other like offence, to be inflicted, recovered, and applied, in manner as herein after directed.

And be it further enacted by the authority aforesaid, that all and every magistrate, magistrates, and others, (authorized by law to set an assize) in all questions touching the sorts of flour, as, whether it be best wheaten flour, or flour of wheat of equal goodness? whether it be standard wheaten flour, or flour of wheat of equal goodness? whether it be household wheaten flour, or flour of wheat of equal goodness? whether it be of such sort, or of equal goodness to such sort as it purporteth to be, as is by law required and directed? is and are hereby authorized to judge and determine upon his or their own inspection and judgment; which judgment is hereby declared to be decisive and final.

Provided always, that the said magistrate, magistrates, or others, as aforesaid, if he or they shall entertain any doubts as to the sort or goodness of the flour informed against, complained of,  
or

or otherwise under his inspection, when compared with the samples lodged as before directed, he or they may (if he or they shall so think proper) call in the aid of any one or two persons knowing in the nature of flour, to assist him or them in forming his or their judgment thereupon.

And be it hereby further enacted, that whenever and wherever, from and after the commencement of this Act, the price of middling wheat, together with the baker's allowance added thereto, shall be at such rate, as that wheaten bread (if assized according to said rate) would be assized at and after the rate of two pence per pound, averdupoise, or upwards, then, there; and in such case, the magistrate, magistrates, or others, setting an assize, is and are hereby required to prohibit the makers of bread for sale, from making or baking for sale, or selling or exposing to or for sale, any other one or more sorts of bread, being, or purporting to be, of a superior quality, and sold at a higher price, than Standard Wheaten Bread; which said prohibition shall continue in force, or be renewed so as to continue in force, so long as the price of middling Wheat shall continue at such rate aforesaid, within the bounds of his or their jurisdiction.

Provided always, that he or they do proceed in the making and issuing his or their order for such prohibition, by the same rules and regula-



“ say, in places where penny, twopenny;  
 “ sixpenny, twelvepenny, and eighteenpenny  
 “ Loaves are made,

				Averdupoise.		
				lb.	oz.	drs.
“ The Penny Loaf, “ or Two Halfpenny “ Loaves, to weigh	}	Wheaten	_____			
		Standard Wheaten	_____			
		Houſhold	_____			
“ The Twopenny “ Loaf to weigh	}	Wheaten	_____			
		Standard Wheaten	_____			
		Houſhold	_____			
“ The Sixpenny “ Loaf to weigh	}	Wheaten	_____			
		Standard Wheaten	_____			
		Houſhold	_____			
“ The Twelvepenny “ Loaf to weigh	}	Wheaten	_____			
		Standard Wheaten	_____			
		Houſhold	_____			
“ The Eighteenpen- “ ny Loaf to weigh	}	Wheaten	_____			
		Standard Wheaten	_____			
		Houſhold	_____			

And in places where quartern, half peck, and peck  
 loaves ſhall be made, then as follows :

Averdupoise.

				lb.	oz.	dr.		
“ The Peck “ Loaf is to “ weigh	}	Wheaten	}	17	6	0	{ and is to be fold for }	
		Standard Wheaten						
		Houſhold						
“ The Half “ Peck Loaf “ is to weigh	}	Wheaten	}	8	11	0	{ and is to be fold for }	
		Standard Wheaten						
		Houſhold						
“ The Quar- “ tern Loaf is “ to weigh	}	Wheaten	}	4	5	8	{ and is to be fold for }	
		Standard Wheaten						
		Houſhold						

And, whereas the bakers to whom the order  
 of aſſize ſo ſet ſhall extend, are herein after re-  
L. 1 2
quired



quired to make and deliver, as therein directed, samples of the several sorts of bread whereon the assize is set, or whereof the price is fixed; so wherever in the city, town or place where the assize aforesaid shall be set, there shall be a bakers' company, which is a body corporate, the order following shall always be annexed to, and make part of the order of assize, and without such order being so annexed to and making part of the order of assize, the order shall be null and void and of none effect.

“ The bakers' company is hereby ordered and  
 “ required within                      days to make or  
 “ cause to be made samples of the Best  
 “ Wheaten Bread, of the Standard Wheaten  
 “ bread and of the Household Wheaten  
 “ Bread, made according to law, and to  
 “ deliver in the same to

And in places where there are no bakers' company, which is a body corporate, the following form shall be observed in issuing the order for the delivery of samples; which order is always to be inserted in, and make part of, the said order of assize; and without such order for the delivery of the samples, in such case, being inserted in, and making part of, the order of assize, the order shall be null and void, and of no effect.

“ To all and every Baker who is or are within  
 “ the jurisdiction to which the assize of bread  
 “ aforesaid doth extend.

“ You

“ You are all, and every each one hereby  
 “ ordered and required, within  
 “ days to make, or cause to be made sam-  
 “ ples of the Best Wheaten Bread, of the  
 “ Standard Wheaten Bread, and of the  
 “ Household, made according to law, and  
 “ each one himself, or by his attorney, as  
 “ herein by this Act directed to be appointed,  
 “ to deliver in to  
 “                   under the like penalty of  
 “                   pounds, the said samples.  
 “ And it is hereby further ordered, that any  
 “ number, or all the individual Bakers to  
 “ whom this order doth extend, may agree  
 “ amongst themselves, and appoint, under  
 “ their hands, some one person to deliver,  
 “ for and in their behalf, the samples afore-  
 “ said, as by law directed; in which case  
 “ such individuals, and such only, as have  
 “ joined in so appointing a person to act in  
 “ the premises on their behalf, if, and so  
 “ long as such person shall duly, as the  
 “ law requires, act therein, are exempt from  
 “ the execution of the matters required by  
 “ this order.”

(Signed A. B. mayor, or other ma-  
 gistrate, magistrates, or others im-  
 powered to set the assize of Bread  
 and prices of Flour.)

Provided always, that wherever, whensoever, and so long as the making or baking for sale, or selling, any one or more sorts of bread, being, or purporting to be, of a finer sort, and sold at a higher price, than standard wheaten bread, is and are prohibited, that part of the order which respects wheaten bread, may be omitted.

And be it hereby further enacted, that if any miller, mealman, or baker, shall sell, or offer to sale, any flour purporting to be the best wheaten flour, or flour of wheat of equal goodness; or purporting to be standard wheaten flour, or flour of wheat of equal goodness; or purporting to be household wheaten flour, or flour of wheat of equal goodness; and upon complaint or information upon the oath of one or more credible witness or witnesses, or upon his own confession, made to any magistrate, magistrates, or others, authorized to set an assize as aforesaid, the said flour so offered to sale, or sold, shall appear to the said magistrate, magistrates, or others, not to be such best wheaten flour, or flour of wheat of equal goodness; or such standard wheaten flour, or flour of wheat of equal goodness, or such household wheaten flour, or flour of wheat of equal goodness, each respectively as it was offered to sale, or sold for, or purported to be, such magistrate, magistrates, or others, shall thereupon decide and give judgment accordingly, and such miller, mealman,

man, or baker, so offending, and being convicted thereof, shall for the first offence forfeit ten shillings, and for each succeeding and repeated offence he shall forfeit double the sum which was inflicted upon him, and recovered, for the last foregoing offence of the like nature, to be inflicted, recovered, and applied, as herein after directed.

And be it hereby further enacted, that if any baker shall, in like manner as aforesaid, before any magistrate, magistrates, or others, aforesaid, upon the oath of one or more credible witness or witnesses, or upon his own confession, be convicted of having used, in the making of wheaten bread, any flour which was not the best wheaten flour, or flour of wheat of equal goodness; or of having used, in making standard wheaten bread, any flour which was not standard wheaten flour, or flour of wheat of equal goodness; or of having used, in making household bread, any flour which was not household wheaten flour, or flour of wheat of equal goodness; such baker shall for the first offence, forfeit ten shillings, and for each succeeding and repeated offence he shall forfeit double the sum which was inflicted upon him, and recovered, for the last foregoing offence of the like nature, to be inflicted, recovered and applied, as herein after directed.

And be it hereby further enacted, that all or any magistrate, magistrates, or others, as aforesaid, authorized as aforesaid, and that shall have set an

assize as herein before directed, is and are hereby authorized and impowered, within his and their respective jurisdictions, to inspect, from time to time, as he or they shall think fit, the flour offered to sale, or sold, in the market, or in the baker's shop, or used there for the making of bread for sale; and every miller, mealman, or baker, offering to sale, or selling, flour, or so using the same as aforesaid, is hereby required to permit the said magistrate, magistrates, or others, so authorized, to inspect and examine their flour, under the like penalties for refusing as are by an Act, passed in the thirty-first year of the reign of his late majesty King George the second, intituled, "An Act for the due making of bread, and to regulate the price and assize thereof; and to punish persons who shall adulterate meal, flour, or bread," directed to be inflicted on persons obstructing or wilfully opposing the search after adulterated meal or flour, as therein authorized to be made: and if such magistrate, magistrates, or others, shall find in the market, or bakers' shops, offered to sale, or sold, or used in the making of bread for sale, any flour which, upon examination, doth appear to such magistrate, magistrates, or others, not to be of such sort, or of equal goodness to such sort, which it was offered to sale, or sold, or used, for, or purporteth to be, such magistrate, magistrates, or others, is and are hereby further authorized and required to summons such miller, mealman,



mealman, or baker, who so offered to sale, sold, or so used, said flour, as also such witness or witnesses as can give information in the premises, and upon conviction, in manner as above directed, to inflict upon the offender the same and the like penalties as though the matter had come before him by complaint, or on information.

And whereas it hath been a practice of late years, amongst some millers and mealmen, to re-grind and re-dress the pollard or bran, and to mix the same, so re-ground or so re-dressed, with the meal or flour of wheat, by which means great part of the hull of the grain so mixed is delivered or sold with the flour, contrary to law, and to the hurt and damage of the consumer, and to the defrauding and damage of the consumers of biscuit bread more especially; be it hereby further enacted, that if any miller, mealman, or baker, shall re-grind or re-dress any pollard or bran, in order to mix, and shall so mix it, so re-ground and re-dressed, with the meal or flour of wheat at the time of grinding, dressing, bolting, or in anywise manufacturing the said meal or flour, or shall knowingly sell, or offer to or for sale, or deliver in lieu of wheat ground, or use in making of bread for sale, any meal or flour wherein such pollard or bran so re-ground and so re-dressed shall be mixed, and shall be convicted thereof in manner prescribed by an Act, passed in the 31st year of the reign of his late Majesty George II. intituled, " An Act for the due making of Bread,

" and

“ and to regulate the Price and Assize thereof;  
“ and to punish Persons who shall adulterate Meal,  
“ Flour, or Bread,” (such meal or flour with  
which such bran or pollard re-ground and re-dressed  
is mixed, being hereby declared to be meal and  
flour adulterated) such miller, mealman, or baker,  
shall be liable to, and suffer, all the pains, penalties,  
and forfeitures, inflicted by the said Act for adul-  
terating meal, flour, or bread; and such adulte-  
rated meal or flour, shall be forfeited, seized, and  
disposed of, in like manner as directed by the Act  
aforesaid, in the case of meal or flour adulterated.

And be it hereby further enacted, that whenever  
any person shall bring any wheat, being clean and  
wholesome, to any miller having a mill, within the  
city, town, parish, district, or place, wherein such  
person is a legal inhabitant, and shall require the  
said miller to grind the same for him, such mil-  
ler is hereby required and directed to grind the  
said wheat within seven days from the time of the  
delivery thereof, or otherwise to deliver to the said  
person requiring the same, after deducting the ac-  
customed toll, (            lb. in each bushel, for  
waste) an equal weight of good and wholesome  
wheaten meal, including the whole flour, and whole  
bran or hull, under the penalty for not so doing of  
forfeiting ten shillings for each offence, to be in-  
flicted, levied, and recovered, as herein after di-  
rected: and if the said miller hath, or doth use,  
in

in his said mill, or connected therewith, a bolting machine, he shall, if thereunto required by the said person, dress the said meal into standard wheaten flour, or deliver in like manner to the person so requiring it, standard wheaten flour, which flour so dressed, or so delivered, shall weigh in the proportion of three fourth parts of the weight of the grain which was delivered to the miller so to grind and so to dress; and if the said miller shall refuse so to grind, or, having a bolting machine as aforesaid, so to dress, or so to deliver, such meal, or such flour, as herein before required and directed, or shall deliver for standard wheaten flour, flour which is not standard wheaten flour, and shall upon complaint be convicted of so offending, he shall for the first offence forfeit ten shillings, and for every repeated offence of the like nature, if in like manner convicted thereof, double the sum which he was liable to forfeit for the offence last preceding.

Provided always, that nothing herein contained shall extend, or be construed to extend, to oblige any miller to grind or dress at any one time, or within the space of seven days, more than two bushels of wheat for one person, except such person be a baker.

And it is hereby further enacted by the authority aforesaid, that it shall and may be lawful for any the magistrate, magistrates, or others authorized by law to set an assize on bread or flour, to summons  
any

any offender against the premises, or any witness or witnesses, and to administer any oath herein required to be taken by any witness, witnesses, or others, for the better discovery and execution of the several matters or things herein authorized, required, or directed, to be performed, or to be examined, enquired into, or judged of, by said magistrate, magistrates, or others, as aforesaid, and to hear and determine in a summary way all offences committed against the true intent and meaning of this Act; and if any person who shall be so examined on oath shall wilfully forswear him or herself, every such person shall be subject and liable to be prosecuted as for perjury, by indictment or information, by due course of law; and if convicted, shall be liable to the penalties persons convicted of wilful and corrupt perjury are subject and liable to by law.

And be it further enacted by the authority aforesaid, that all penalties and forfeitures by this Act inflicted for any offence against the same, and all costs and charges to be allowed and ordered by the authority of this Act (the manner of levying and recovering of which is not hereby otherwise particularly directed) shall be levied by distress and sale of the goods and chattels of the offender, or person liable or ordered to pay the same respectively, by warrant under the hand and seal of some magistrate authorized by law as aforesaid to set the assize of bread, in the county or place where



where such offence shall happen, or such order for payment of such costs or charges shall be made, rendering the overplus of such distress (if any) to the party or parties, after deducting the charges of making the same (which warrant such magistrate is hereby impowered and required to grant, upon conviction of the offender, by confession, or upon the oath of one or more credible witness or witnesses, or upon such order made as aforesaid) and such penalties and forfeitures, when recovered or levied, shall be paid and distributed, the one half to the informer, with such further reasonable costs and charges as the magistrate or magistrates before whom such offender or offenders shall be convicted shall, from time to time, think fit and order, for the better carrying into execution the purposes of this Act, and defraying the costs and charges attending the same; and in case such distress cannot be found, and such penalties, forfeitures, costs, and charges, shall not be forthwith paid, it shall and may be lawful for such magistrate, and he is hereby authorized and required, by warrant under his hand and seal, to commit such offender or offenders, or person or persons liable to pay the same respectively, to the common goal or house of correction of the county or place where the offender shall be convicted, for any time not exceeding one calendar month, unless the said penalty, forfeiture, costs, or charges, shall respectively be sooner paid; and



and if such offender or offenders, or person or persons liable or ordered to pay the same respectively, shall dwell or inhabit, or convey away his goods, out of the jurisdiction of the magistrate or magistrates hereby authorized to grant such warrant, it shall and may be lawful for any magistrate of the county or place wherein such person shall dwell or inhabit, or shall have removed his goods, and every such magistrate is hereby required, (upon request to him for that purpose made, and upon a true copy of the conviction whereby such forfeiture or penalty was incurred, and of the order for the payment of such costs or charges, produced, and proved by a credible witness upon oath) by warrant under his hand and seal, to cause the penalty or forfeiture mentioned in such conviction, or the costs or charges mentioned in such order, to be levied by distress and sale of the goods and chattels of such offender or offenders, or person or persons liable or ordered to pay the same respectively as aforesaid; and if no sufficient distress can be had, to commit such offender or offenders, or person or persons liable as aforesaid, to the common gaol or house of correction of such county or place, for the time and in manner aforesaid.

Provided always, that if any information shall be laid against any baker for any offence committed against this present Act, and such baker shall prove that he bought the flour in respect whereof  
such

such information was laid, as and for such flour as herein before prescribed, of the miller or mealman, naming his name and place of abode, then and in such case the baker shall stand clear and acquitted, upon giving security, in the penalty of ten pounds, to prosecute such miller or mealman, without delay ; and the miller or mealman so offending, and being legally convicted thereof, shall forfeit and pay ten shillings, to be inflicted, recovered, and applied, in manner aforesaid : And if such miller or mealman shall inhabit or dwell, or have conveyed away his goods, out of the jurisdiction of such magistrate or magistrates before whom such information was laid against the said baker, then it shall and may be lawful for any magistrate of the county or place wherein such miller or mealman shall dwell or inhabit, or shall have removed his goods, and every such magistrate is hereby authorized and required, to hear and determine such offence, in the same manner as if the same had been committed within his jurisdiction ; and upon conviction of the offender, to cause the penalties and forfeitures incurred thereby, together with such costs and charges to the informer as he shall judge reasonable, to be levied in such manner as herein before prescribed and directed in that behalf, as if the same were again repeated and re-enacted : Provided also, that where any the penalties above-mentioned shall be inflicted and recoverable, under

der the authority of this Act, against any company of bakers, being a body corporate, and no effects shall be found belonging to such corporate body whereon to make distress, then, and in such case, the goods and chattels of the master, warden, or assistants, or other officer or member of such corporation, or any of them, shall be liable to the said distress in manner herein before mentioned.

And be it hereby further enacted, that all magistrates, and all other persons whatsoever, shall be entitled to, and have, all the privileges, protections, and indemnifications, in all respects whatsoever, for what they shall lawfully do in putting this Act in execution, as they are intitled to, and have, by the laws now in being relative to the making of Bread, and selling or exposing the same to or for sale, by putting the said laws in execution.

Provided always, and be it hereby further enacted, that nothing in this Act contained shall extend, or be construed to extend, to prejudice the right or custom of London, or of any Lord or Lords of any Leet, or of the Dean of the Collegiate Church of St. Peter, or of the High Steward of the City of Westminster, or the ancient right or custom of the two Universities of Oxford and Cambridge, or either of them; but that their ancient rights and customs shall be saved to them, and to every of them, as by an Act, passed in  
the

the Thirteenth year of the reign of His present Majesty, intituled, “ An Act for the better regulating the assize and making of Bread,” they are there saved and provided for.

## CALCULATION OF THE BARLEY-TAX.

*By Capel Loft, Esq.*

Dear S I R,

**I** RECEIVED, when I was in Town, last week, the under-written calculation from a gentleman in *Bedfordshire*, respecting the heavy deductions from the profit of a crop of barley when in the *grain*, and afterwards when *malted*.

He supposes *five quarters per acre* an *average* produce.

He then says,	£.	s.	d.
5 quarters of barley, on one acre of land, pays	2	15	0
5 quarters of malt, 13 barrels, at 6s. 10d. duty to the same, pays	4	8	10
<i>Total</i>	<u>7</u>	<u>3</u>	<u>10</u>

On this general datum, the following reflections suggested themselves:

	£.	s.	d.
Suppose the <i>average</i> price to be 20s. per quarter,	=	5	0 0
<i>Net produce</i>	-	2	5 0
If not malted, as per margin:		5	0 0
<i>Subtract</i>	-	2	15 0
<i>Remains</i>	-	2	5 0

But if malted,

The *duty*, then, added to the deductions from the profit of the crop, as above stated, will stand thus, compared with the *net* profit:

Suppose the whole converted into	£. s. d.
malt, saleable at - - -	1 13 0
5 quarters - - - - =	8 5 0
Expences on the barley, exclusive of	
the process of malting - -	2 15 0
As above, duty - - -	4 8 10
Malting, suppose 3s. per quarter* -	0 15 0
	<hr/>
	£. 7 18 10
Ballance - - - - -	0 6 2
	<hr/>
	£. 8 5 0
	<hr/>

It is to be hoped that no other *necessary* of life suffers an *impost* in any degree proportionably severe.

I consider BEER (in the language of the very ingenious Dr. *Warner*) as the natural *beverage*

\* I understand it is now 32s. per 10 quarters, which is 3s. 2d. and  $\frac{1}{4}$  very nearly, per quarter, and would reduce the ballance to 5s. 2 $\frac{1}{4}$ d.

s. d.
5 2 $\frac{1}{4}$
11 $\frac{1}{4}$
<hr/>
6 2
<hr/>

But then, on the other hand, the average of malt is set 1s. 8d. lower than the last stated London price.

of



of an Englishman, who is to labour strenuously;—to enjoy health and spirits;—and to leave behind him a numerous and hardy race. *Posterity* †, I fear, will execrate the encouragement to *spirituous liquors*; and the discouragement (virtually a *prohibition* as to the *great part* of the community) of the use of *beer*.

The sober and industrious drink *water*; which, considering their very spare and scanty diet, the great deficiency of *animal food*, or even of a due proportion of *nutritious bread*, is not adequate to the recruit of their strength; they become, therefore, prematurely exhausted:—The careless and corrupt drink *bad spirits*, and become stupified and overwhelmed—stimulated to mischief—incapable of better exertion.

I have said nothing of the DUTY on *beer*: the *grand evil* being, that it is put out of the power of the *husbandman*, in general, to brew his *own* beer. He cannot brew his *own beer*!—he cannot purchase it of the *common brewer*! for much the

† In this sense, too probably, *Vitio parentum,  
Rara juvenis.*

At the grand AMERICAN COMMEMORATION, when 17,000 were supposed to be present, July 4, 1788, spirituous liquors were excluded. Instead of these, *beer*, and *cyder* (an wholesome liquor when lead is not used in the lining of the vessels for making of it) were adopted by that vast company. It was this genius of AMERICA that armed her spear with lightning, and her shield with adamant.

greatest part of the year at least; if he procures it at all, it is *at the ale-house*.—Another grievance! whether the morals of the individual, or the order and happiness of his family be considered;—and there, too, from the pernicious habits, and dire necessity daily encreasing, he rarely, I doubt, tastes of BEER; but, instead of this, quaffs oblivion to his cares, by indulging in fatal draughts of the *coarsest and worst spirits*:—one of the *cheapest*, and now seemingly the *most unsuspected of poisons*!—in lieu of deriving vigour of mind to persevere in his toil, from the animating view of his domestic *hearth*;—and strength to convert his labours into  *blessings*, from the generous liquor, the *uncorrupted* produce of his own little *harvest*) which cheered the heroes of *Crécy*, and of *Agincourt*! and taught *James*, that *Englishmen* had *comforts* to *cherish*, as well as *rights* to guard, beneath the shade of *constitutional freedom*:—comforts which will not inspire *national* vigour and public virtue, if the sphere of their enjoyment becomes gradually more and more circumscribed!—if the principle of honest attachment yield, on one side, to *dissipation*, on the other, to cheerless and hopeless *poverty*.

The MINISTER and the *Parliament*, by whose *attention* and *sympathy* for the sufferings of *the people*, these evils shall be remedied, will confer a greater political blessing on this country, than  
any

any it has experienced since the commencement of this century.

I remain, dear Sir,  
With great respect and esteem,  
Your faithful and obliged

Troston-Hall,  
Nov. 13, 1788.

CAPEL LOFFT.

AS the payment of 2l. 15s. was stated in the *gross*, by the gentleman;—who gave me not the particulars—I have been endeavouring to inform myself of the probable amount of *rent, cultivation, tithes*, and other *parochial out-goings*; and, *conjecturally* have drawn up the particulars, which stand below. In this, and the other parts of my letter, you will oblige me by adverting, where necessary, on the errors my inexperience may have incurred\*.

Rent, 1 acre	-	0	15	0	of such land as will
Seed, 4 bushels	-	0	10	0	produce 5 qrs.
3 times ploughing†	0	10	6		
Ditto barrowing	0	2	0		
Sowing	-	-	0	0	3
Rolling‡	-	-	0	0	6

*Harvest*

\* The calculation is accurate and important, and is a fresh and curious instance of the readiness of the legislature of this kingdom to burthen its agriculture.

† On land of 15s. an acre, a ploughing cannot, generally, be reckoned, in the Eastern counties, at less than 4s. In other parts of

<i>Harvest</i>	-	-	0	5	0
<i>Threshing</i>	-	0	5	6	
<i>Land-tax</i>	-	0	2	0	
<i>Poor-rates</i>	-	0	1	0	
<i>Tithes</i>	-	-	0	3	0
<hr/>					
	£.	2	14	9	
<hr/>					

Which, if the above estimate be just, differs but 3d. from the general *datum*.

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## T I T H E S.

THE perusal of the Rev. Mr. Grant's letter respecting tithes, in the last No. of the Annals of Agriculture, with the Editor's observations on it, has occasioned the following queries:

Is there any land for agriculture so expensive in its culture as the hop-ground?

Is there any article of culture more precarious in its produce than the hop?

Is land under the hop culture exempt from the payment of tithes to the clergy?

of the kingdom, much more. Rolling, at 6d. is too high. Nothing is allowed for fences, bailiff, interest of capital, and sundry charges: But these points do not at all affect the argument, but rather strengthen it: A. Y.

Is

Is there any land used for agriculture that produces so high a rent?

Is there any produce of land, from agriculture, that pays, *immediately*, so heavy a duty to the Crown?

Supposing these queries answered in the negative, the inference seems obvious to

A. B.

London, Nov. 10, 1788.

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R E V I E W.

*Traité D' Agriculture avec la Comparaison de la France & de l'Angleterre. 3 vols. 8vo. 1788. Par M. de Fresne.*

THE French continue to publish every year numerous works on this important subject, in many of which the most careless reader that is well informed, cannot fail of generally remarking a great deficiency of foreign knowledge. Their writers usually rely on theories; but neither practise nor travel; but it is very well known that if they would be of use to their countrymen, they should visit the English counties before they publish their instructions for French provinces.

The gentleman who is the author of this work, and who resides in Franche Compté, to avoid this error, travelled into England.

M m 4

His



His great object is to draw a comparison between the two kingdoms. He seems, in general, very sensible of the superiority of England, and he recommends her example to his countrymen.

How far the writer is practical and intelligent, will best appear by those features of his work which are the most prominent.

Vol. i. p. 51. Straw used as litter is lost; rotten straw diminishes the strength of dung: but

Vol. iii. p. 42, it is consumed by cattle, of much more consequence than the corn itself; le benefice des grains est peu de chose en comparaisoncelui des pailles est beaucoup plus considerable.

39. It is this consumption of straw that enables the English to export corn to the amount of  $1\frac{1}{2}$  times their consumption, or 300 millions a-year; that is 13,125,000*l.* sterling! and which gives them a foreign commerce of 7650,000,000 of livres, that is 332,762,500*l.* sterling! This consumption of straw is one of the most marvellous things to be met with; the author assures us, (vol. i. p. 139,) that his book will be infinitely interesting to England, for that none of her political writers have explained her policy upon the principles which he has done.

206. Sheep-walks produce infinitely more (rapportent infiniment plus) than the best meadows which are mown twice or thrice a-year.

292. A proposal for executing the works of tillage with sheep in a rolling cylinder, as a dog turns a spit; in order to keep the sheep more healthy; their complaints arising very much from a want of exercise.

280. Also for drawing carriages, dung-carts, &c. by attaching them to balloons filled with inflammable air; a means, he says, of saving the labour of prodigious numbers of horses and oxen.

Vol. iii. p. 128. He says the export of wine from France ought to be prohibited: and his reason is, because the English are so rich, that they will come and drink it in France if they cannot have it at home.

227. He says, that all the wonders of English agriculture are owing to the writings of Halen, whose great experience, upon very bad land, has rendered his name celebrated for ever!

I shall not quote any more of the delectable practices, and observations made and recommended by this gentleman; but only observe, that he travelled into England to gain agricultural knowledge;—for he tells us that he went into a Coffee-house at London!

SIR.

## SIR JOSEPH BANKS' HAY-BARN.

*( See Vol. x. p. 282. )**References.*

*a a.* **W**HEELS of a waggon, or broad-wheel cart.

*b b.* Spars of fir, 32 feet in length,  $5\frac{1}{2}$  inches thick.

*c.* Another spar of the same length, 5 inches thick in the middle, but tapered at each end to 3.

*d d.* Lines to support the poles fastened to pegs driven into the ground.

*e e.* Iron thimbles, to which the lines are fixed.

*f f.* Blocks with one shive fastened to the end of the cross-spar, to which the standing part of the line is first fixed.

*g g.* Blocks with two shives fastened to the upright poles, through one of which the line is first received, which afterwards passing through the single block, comes up again through the second shive of the upper one, and passes thence to the ground.

*h h. & c.* Lines by which the cloth is pegged to the side of the stack, to prevent its flapping in the wind.

*I.* Figure of the blocks at large, with the manner of reefing the lines.

*The whole is on a scale of  $\frac{1}{12}$  inch to a foot.*

REPLY

REPLY TO QUERIES CONCERNING  
THE PRICE OF WOOL, &c. &c.

I.

B E R K S H I R E.

*Rev. Mr. Valpy, of Reading.*

Dear S I R,

**Y**OU must be satisfied with the following answers to your queries, for they are the best I can at present procure. As far as they go, I have reason to believe them authentic.

The price of wool is the same as it was, when I sent you the state of it in this county,—at least 10d. a pound. A merchant in this town told me he had, some months ago, a very large quantity, which he immediately sold on the idea that the late Act would reduce the price. But whether it is that the Act has not had sufficient time to operate, or whether, as you very judiciously foresaw, it would only be productive of oppression to the grower, and encouragement to the smuggler, certain it is that he was disappointed, for the price has rather been encreasing.

The price of spinning remains the same in this county. In Wiltshire, if I am rightly informed, it has lately been advanced one penny per pound, from an encreased demand for the manufacture.

No

No material circumstance has occurred, relative to the trade. As far as I can form an idea of the general sentiments of the county, I believe they are by no means opposed to an exportation of wool, under proper regulations.

In the deep soil of the vale of Berkshire, the crops have seldom been better than this year. In the hilly and gravelly parts of the county, the dry weather in the Spring has made them light; but they have yielded well, in proportion to the quantity.

State of Reading market this day :

Hay, from 3l. 10s. to 4l. 10s. per ton of 20C.

Wheat, from 6s. to 7s. per bushel.

Barley, from 3s. to 3s. 6d. ditto.

Pease, from 4s. to 4s. 6d. ditto.

Beans, from 3s. 6d. to 4s. ditto.

Oats, from 2s. 6d. to 3s. ditto

Tares, from 5s. to 5s. 6d. ditto

Beef, from 2s. 4d. to 3s. 4d. per stone of 8lb.

Veal, from 3s. 4d. to 4s. ditto.

Mutton, from 2s. 8d. to 3s. 4d. ditto.

Pork, from 3s. to 3s. 6d. ditto.

There is so little hemp and flax cultivated in this county, that the bounty can scarcely be said to have operated in it at all.

The average price of flax is 2 guineas per hundred. Hemp, undressed, is from 32 to 36s.—Dressing, from



from 4s. to 6s. 8d. per hundred; but that always depends on the manufacture, for which it is dressed.

I am, dear Sir,

Yours, faithfully,

R. VALPY.

Reading, Nov. 15, 1788.

II.

H A M P S H I R E.

*Alexander Baxter, Esq. of Odibam.*

Odiham, November 15, 1788.

Dear Sir,

**I** RECEIVED yours of the 6th instant, on the 12th, in answer to which:

Wool of the last clip sold, in this country, at 23s. per tod of 29 pounds.

The sale of wool now dull.

No alteration in the price of spinning, last six months.

There is a good deal of spinning of wool in this country.—No other branch of the woollen manufactory, except at Alton, (by Messrs. Waring);—goods in imitation of the Manchester cotton goods, barragon, &c.

A good deal of silk spun in this country.

The corn crops small.

Little hay and very little straw.

Seed

Seed wheat 7s. and 7s. 6d. per bushel, of  
9 gallons.

Grinding ditto, at first, 6s. 9d.—6s. 3d.—and  
now 6s. per ditto.

Average weight, 71lb.

Last year ditto, 68lb.

Dry meadow hay, at first 4l.—now 3l. per ton.

Barley, a very bad crop, 26s. per quarter.

Sheep and cattle very dear; though cheaper  
than they were some time ago.

A great crop of apples and other fruit.—Same  
of acorns.

Hogs at first dear; now cheap.

Bacon 8s. per score; now 7s.

A great crop of turneps.

Middling crop of hops; but prices do not pay  
the planter.

No hemp or flax in this country.

I have the honour to be,

With great esteem,

Dear Sir,

Your most obedient,

And very humble Servant,

ALEXANDER BAXTER.

AVE-

# AGRICULTURE. 525

## AVERAGE PRICES OF CORN FOR OCTOBER, 1788.

*By the standard Winchester Bushel of 8 Gallons.*

	Wheat.	Barley.	Oats.	Beans
London	5 6	2 8	1 11	2 9
C O U N T I E S I N L A N D.				
Middlesex,	5 7	2 10	2 3	3 1
Surrey,	5 8	2 10	2 3	3 11
Hertford,	5 7	2 11	2 1	3 5
Bedford,	5 3	2 9	1 10	3 0
Cambridge,	5 0	2 7	1 8	2 9
Huntingdon,	5 0	2 7	1 8	2 8
Northampton,	5 5	2 6	1 9	3 0
Rutland,	5 3	2 7	1 10	3 0
Leicester,	5 4	2 8	1 10	3 2
Nottingham,	5 4	2 5	1 11	3 0
Derby,	5 10	2 11	2 0	3 4
Stafford	5 11	2 10	2 1	3 9
Shropshire,	6 0	2 8	1 11	4 2
Hereford,	5 3	2 9	1 10	—
Worcester,	6 0	2 8	2 2	3 1
Warwick,	5 8	2 9	2 1	3 4
Gloucester	5 10	2 7	2 0	3 3
Wiltshire,	5 0	2 11	2 4	3 11
Berks,	5 8	2 8	2 3	3 2
Oxford,	5 8	2 11	2 4	3 5
Bucks,	5 6	2 8	2 1	3 3
C O U N T I E S U P O N T H E C O A S T.				
Essex,	5 1	2 4	2 0	2 8
Suffolk,	4 10	2 4	1 10	2 5
Norfolk	4 9	2 4	1 11	—
Lincoln,	5 0	2 5	1 8	2 9
York,	5 7	2 7	1 9	3 2
Durham,	5 5	2 9	1 10	3 6
Northumberland,	5 2	2 5	1 9	3 6
Cumberland,	5 11	2 8	1 9	3 8
C O U N T I E S				

## COUNTIES UPON THE COAST.

	<i>Wheat.</i>	<i>Barley.</i>	<i>Oats.</i>	<i>Beans:</i>
Westmoreland,	6 2	2 11	1 9	4 0
Lancaster,	6 0	3 4	2 1	3 9
Chester,	5 10	2 9	2 1	—
Monmouth,	6 1	2 10	1 8	—
Somerset,	5 9	2 7	2 0	3 7
Devon,	5 9	2 10	1 7	—
Cornwall,	5 9	2 10	1 8	—
Dorset,	5 6	2 10	2 1	4 0
Hampshire,	5 1	2 11	2 1	3 4
Suffex,	5 5	2 8	2 1	3 4
Kent,	5 6	2 8	2 2	2 8
Wales,	5 8	3 0	1 7	4 3
General average	5 6	2 8	1 11	3 1

LONDON PRICES OF CORN FOR  
OCTOBER, 1788.

<i>Grain.</i>	<i>Quarters.</i>	<i>Price.</i>	<i>Aver. per Quar.</i>
		<i>£. s. d.</i>	<i>£. s. d.</i>
Barley,	— 26917 —	29065 7 5	— 1 1 1
Beans,	— 10686 —	13610 3 10	— 1 2 6
Malt,	— 13725 —	20485 6 7	— 1 12 9
Oats,	— 54760 —	42140 5 0	— 0 15 2
Peas	— 4891 —	6499 2 3	— 1 7 1
Rye,	— 1057 —	1213 0 1	— 1 2 10
Wheat,	— 22427 —	48294 5 6	— 2 2 10
	<u>134463</u>	<u>161307 10 8</u>	

COURSE OF EXCHANGE, FOR  
OCTOBER, 1788.

Amsterdam - - 38 2	Leghorn, 47 $\frac{1}{2}$
Hamburg, - 34 10 2 $\frac{1}{2}$ U	Genoa, 44 $\frac{1}{2}$
Paris, - - - 28 $\frac{1}{2}$	Venice, 47 $\frac{1}{2}$
Cadiz, - - 35 $\frac{1}{2}$	Lisbon, 65 $\frac{1}{2}$
Madrid, - - 35 $\frac{1}{2}$	Dublin, 8 $\frac{1}{2}$

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A N N A L S  
O F  
A G R I C U L T U R E.

---

REPLY TO QUERIES ON PLANTING.

*By the Earl of Fife\*.*

Duff-House.

S I R,

**I** HAVE the honour to receive your letter; it will give me great pleasure if the information concerning my plantations meets with your approbation, or is of any public benefit.

I think the best way is to write down your queries, and then to answer them separately.

\* The interesting account of the Earl of Fife's plantations, inserted in vol. ix. p. 103, excited a considerable degree of attention amongst those who wished to be well acquainted with the best methods of planting: Queries came to me from several persons, to which I added others, and took the liberty of transmitting them to the noble planter. He has, with his usual liberality and ability, answered them, much to my satisfaction, and I doubt not to that of all my readers. Instruction is not often to be received from him who has planted 7000 acres!

A. Y.

• VOL. X. No. 60.

N n

1. What



1. What is the gross value of an acre of the different sorts of plants, taken at 15, 20, and 30 years, the whole to be cut down, or ten or twenty fine trees left, but valued?

2. What is the expence of an acre at the end of 30 years?

3. What is the peculiar soil in the plantations that agrees best respectively with oak, ash, elm, fir, larch, beech?

4. How far better a mixture than one sort to one soil?

5. At what ages are the plantations thinned, and by what rule?

6. In thinning, are they cut so as to become stools, or grubbed for total destruction, and which do you prefer?

7. What is the price, per load, of faggots, and what a cord of wood, and of timber, by the foot?

8. Which trees, and relative to what soils, have thriven best sown, and which planted?

9. What is the best age for transplanting, respectively for each sort of tree?

10. What is the preparation given to the ground before planting?

11. When the land is covered with spontaneous rubbish, do you cut or grub it, or preserve by way of shelter?

12. At what degree of goodness of waste soil does it cease to be profitable to plant, cultivation being the proper improvement?

13. What

13. What are the respective height of the trees of each sort that are now 25 or 30 years old, and what the circumference at three \* feet from the ground?

14. Is any sort of pruning proper? What sort and in what trees?

15. Season of sowing; if in the Spring, how preserve the seeds?

16. At what age can underwood be cleared away, the fine standers left thin, and cattle admitted to pasture?

17. Do you hoe, dig, cultivate, or do any thing to the ground, while the trees are growing; in what soils, for what trees, and under what circumstances?

## *Answers.*

1. It is very difficult to answer this, it so much depends on the different species of trees and the number that are left in the acre. I have yet never cut any trees but the worst, and always with a view of being of service to them that are left. I think trees at 20 and 30 years old that are intended to stand for timber, are but beginning to be of value, and should only be cut when they stand too near each other. Weedings of ash, oak, elm, and beech, would sell here at that age from 7 to 10s.

\* I thought I had put it five feet. So many celebrated trees have been registered at five feet, that they should in general be measured at that height. A. Y.

N n 2

a tree ;

a tree; the number of trees to be left in an acre should entirely depend on the trees not touching each other, so as to bruise the branches.

2. I think, with proper management, the weedings may not only pay the expence of the acre of ground for 30 years, but also more than any yearly rent could have been drawn for it, and the wood standing on the acre at the end of 30 years, will be of great value, and so much gained, encreasing in value every year; but all this depends on the judgment in weeding, and not over pruning, so as not to have too many trees with amputated limbs standing on the acre.

3. In the moors I find every kind of tree thrive when sheltered by the Scotch firs; where there are hollow or loamy, sandy places, I plant oak, beech, ash, elm, and larch, mixed not so thick with the firs as on the harder ground; there is shelter and moisture from the firs, that advance the other trees greatly, only they must not be allowed to overtop them, so as to keep them from air; the firs are also the best nurses, because where they are pruned they never put out another branch, and when cut down, the roots die, and do not rob the ground by any further growth.

4. I think, in any soil the mixture is better, and when they fail, they can be filled up with trees that are found to thrive best; the larch and silver fir, planted about three years old, thrive better than  
any

any tree, and grow to a great size. I am this year making an inclosure in the county of Moray, of above 300 acres; 50 acres is to be planted entirely with larch and silver fir; a great part of the moor is small hills and hollows; the rising grounds to be covered with larch, and the hollows with the silver firs, the flat part of the moor with all the different mixed trees; by this it will be both ornamental and profitable.

5. The best rule in thinning plantations, is, whenever the branches touch each other; this will depend on the thriving state which in some exposures and soils will be more forwarded than in others. I always observe, the principal object in the prosperity of a plantation is the early weeding of it; and this should be annually attended to after the first three or four years from the planting. Many people, in place of weeding, prune the trees, but this I think ruinous, as the vigor of the trees depends on the limbs.

6. I have observed before, that the firs, when they are cut down, never spring from the root, so that the trees left, have no injury from them afterwards; in plantations, about 20 years old, where the trees are very thriving, it may be necessary, sometimes, to grub out the roots of trees that are too near, but if regularly and properly weeded, this will not be often required, as the large, prosperous trees, when the branches are vigorous, keep

the underwood down, and will be equally powerful over the roots, so as to receive no injury.

7. In every country, the price of faggots will depend on the price of coal or other firing; in many parts of this country the people have been so accustomed to turf and peat firing, that, from attachment to old habits, they do not like to give it up; that wretched firing takes up a third part of their time; is neither so lasting nor so warm as wood, and in wet seasons they have much difficulty to get it; I am certain, when they come to use wood in general, the value of it will rise greatly, and the benefit to the country still more. Ash, oak, beech, and elm, sell here from 2s. to 2s. 6d. per foot.

8. I think the planting of all kind of trees, that are intended to stand, better than sowing them. I refer to my letter of 1787 on that subject. The seeds of all trees, sown in different places, may certainly grow, but never so well as when the different trees are properly mixed, and planted in the soils they are found to thrive best in.

9. All firs and larches may be planted in the same way; I also refer to my letter on planting mixed woods in moors.

10. I have, in my letter of 1787, given an account of my manner of planting great mixed plantations in moors: In other plantations, where the ground is better and the extent not so great, I would



would advise, first to plough the ground, then give a kind of fallow with the break-harrow, so as to destroy the couch, and make it as clean as possible ; this will not only prepare the ground for the plantation, but save much trouble from after-cleaning. From experience I have found a little lime of great service. After the ground is in good order, then plant it with the trees you chuse to have in the plantation, from four to six feet high ; they may be planted at eight or ten feet distance, and the ground hoed three or four times a year, for six or seven years ; during that time, you can transplant the different trees to other plantations, where they are sheltered ; and where they can be spared, they will answer perfectly ; in about seven years the plantation will be so grown as to shade the ground, and prevent the dry couch from doing any injury ; there will then be no occasion for hoeing, and only to transplant or cut where they are too thick and interfering. This is the method I have followed, with great success, in all plantations that are not raised in the moors : I have planted above 600 acres in this way. The pleasure and benefit in forwarding the trees, will pay the expence.

11. If there are large pits made for planting amongst furze or broom, I do not find any injury ; if the plantation thrive, it very soon gets the better of them, particularly all kind of firs. I have planta-

tions, about 30 years old, which, when planted, were perfectly covered with furze and broom; the trees now in great vigor, no furze or broom to be seen, and the soil so improved, as to be fit to raise any thing; wet places should always have drains to carry off the water; although moist ground may be good for some trees, yet stagnated water always injures, and the couch, rushes, and rubbish that grows, where water is not carried away, is destructive.

12. I always give the preference to agriculture in all places, where inhabitants are near; where there is a favourable soil, with command of springs; or where there are any proper manures for cultivation; I flatter myself that those who live to cut out the woods may at that time find many acres proper for cultivation, as the soil will be much improved, sheltered by the woods, and many articles fit for manure from the woods themselves. I have lowered no rents, nor injured any part of the country at present under cultivation from my plantations in the moors, where only sheep fed a few months in the year; as soon as the harvest was over, these sheep went in common through all the fields, to the injury of every possible improvement in agriculture: my tenants and I have not only much improved what was formerly cultivated, but we have added several hundred acres from moor, now in crops of grain and grass.

13. I have

13. I have larches and silver firs that, three feet from the ground, at 30 years old, measure six feet eight inches in circumference; ash, oak, elm, and beech, are equally thriving, but I find no tree, in size, at their age, so large as the larch and silver fir.

14. Nothing is more dangerous than improper pruning of trees that are intended to stand for timber; no fir tree should ever be pruned, unless it be cutting off the branches that are near the ground; when a fir tree is in old age, the branches gradually decay from the root to the top. I have several trees in the natural fir woods of Mar, in the county of Aberdeen, that, at three feet from the ground, are above 15 feet in circumference, all the limbs dead, the top branches quite healthy; it then ought to be cut down; the timber is also better when the fir drops the branches from age, there is no knot nor blemish in the wood; if a fir tree, in vigor and youth, is much pruned, it never puts out another branch, and is just in a state of old age; all other trees should be pruned with a friendly hand, and only the branches taken away that rival the growth of the body of the tree; in general, those branches are near the ground.

15. I prefer autumn to the spring for sowing, only I would sow with a view that the frosts be over before the plants appear above ground; I look upon the earth as the best preserver of seeds, as well as the mother of all plants; every seed with a  
husk,

husk, is best preserved in the husk; others may be kept in bags or boxes, always taking care not to exclude them too much from air; regard should be had to this when seeds are carried to a distance.

16. The number of fair standards that are left intended for timber, should entirely depend on their having good air, and the branches not interfering. I am against admitting cattle to pasture in plantations, at any age, so long as the timber is intended to prosper, or any advantage got from the underwood. When the woods are fit for cutting down, many acres may be cleared out for agriculture: I find many moors that have been planted about 20 years, that appeared then perfectly hard, are now, by the training and shade of wood, swelled to a very good soil.

17. This is answered mostly in No. 10, only to observe that in large plantations, particularly in moors, to cultivate an acre or two in different places for nurseries; in five or six years the trees will be planted out, leaving a proper number to fill the ground, and then cultivate another piece of ground in the same way.

I am, with great regard,

&c. &c.

F I F E.

ON

ON A COURSE OF CROPS.

*By William Bland, Esq. of Sittingbourn, Kent\*.*

Sittingbourn, Nov. 4, 1788.

S I R,

**I** AM exceedingly sorry I was so unfortunate to be from home when you did me the honour to call on me, in your way to France, and the more so, as I find, by the receipt of your letter, that you are returned by a different road, as I had flattered myself (from the hopes you gave me in your note of my seeing you in your way home) with receiving great pleasure by a conversation with you on farming subjects, and to find myself deprived of that happiness has greatly disappointed me, but I hope some future opportunity will recompense me for what I have lost.

You are pleased to compliment me on my management, and goodness of crops, &c. but in the latter must beg leave to differ from you, as we suffered very much in these parts from want of rain in the spring, and, afterwards, by the slug or grub, which, indeed, almost ruined my pea crop,

† In my journey to France last summer, passing through Sittingbourn, I called at Mr. Bland's, but he was, unfortunately for me, from home. I walked over his farm, and found it in such excellent order, and the crops so fine, as to excite in me a wish to know the circumstances of the course. I wrote to Mr. B. on my return, and the above is the reply.

A. Y.

but



but they were harvested before you saw them, and the wheat was also at places much injured by them. Query, is there no method to stop the depredations of that ruinous tribe, as the damage they do, in particular years, is immense. Some people had them dug up and destroyed, but, I believe; it did not answer the expence.

I make no doubt my husbandry must appear rather strange to you, from my having told you, in a former letter, that I usually followed the round tilth, and my man not being able to give you the reason why it was out of that course, as it must appear to you in so irregular a state, I lament much my not being at home to explain it to you, my present plan being to deviate from the round tilth, and adopt another course which I hope to find more beneficial; that which I mean to follow is this,

1. Wheat,
2. Pease and turneps,
3. Barley or oats,
4. Beans;

for by this round I think I shall be able to keep my land, by attending closely to the two fallow crops, perfectly clean without the aid of fallow, and which in the round tilth I found it difficult to do, without sacrificing so much time on the barley crop as to make it a losing one. My plan is to divide my land equally into four parts, one-fourth  
for

for beans, one-fourth for wheat, one-fourth for pease, and, after turnips, one-fourth for barley; and by so doing, I so equally divide the necessary work, that business goes on regularly through the year, and without hurry or confusion at particular times; and I find I shall be able to save on the farm you saw, half a team of horses, nearly equal to 40l. per annum; and I hope to find my crops, from the trial I have already had, more productive.

You wish me to send you an account of my management and success of

1. Beans,
2. Wheat,
3. Pease and turneps,
4. Barley.

My bean management you are acquainted with, by an account \* before on that subject. My wheat I sometimes sow on the furrow with once ploughing, sometimes, what we call here striking and splitting, that is, after the ground is ploughed we strike it in rows at about ten furrows to the rod, and sow one cast; afterwards, we split or divide those furrows, and sow the second cast; we do this chiefly when the land is light; it likewise buries the seed at a more even depth, and covers the ground better than the single furrowing. Our wheat crops are very thin of straw this year, and seem to yield but indifferently. After the wheat crop is harvested I

\* Vol. ix. p. 23.

take the first opportunity of harrowing the stubble, and shimming it with the large shim, (I believe you saw it,) and then harrow all the rubbish clean off, and carry it into my dung-yard. In the winter I carry all my dung made in the first part of the year, that is tolerably rotted, (as I think dung loses much by laying too long) and lay it very thin, to make it go as far as possible: In the spring I plough the ground, and afterwards I put in my pease in drills, four bushels per acre, and at nearly the same distance as beans; when come up, I brake them two or three times, hoe and hand-weed them, and manage nearly the same as beans: I put in chiefly the early sorts, which I procure of the London seedsmen, and which I usually contract for at a certain price, from 3s. 6d. to 4s. per quarter. I last year grew from four to five quarters per acre; this year from one to three quarters; owing to the cause before mentioned. Immediately after the pease are cut, I lay them in rows, and plough or shim, and sow the turneps directly. This year I chiefly used the shim, and, I find, with very good success, as the turneps are equally as good; I think, better than the ploughed; but whether the succeeding crop will do as well, I am, at present, not able to say; perhaps it may not answer so well every year, this having been a very favourable one for turneps, they having succeeded almost every where: The observations I have already

ready

ready made between the shimming and ploughing are these, independent of time, which is as 5 to 1; the ground requires less harrowing and rolling; much less seed is necessary; the young plants grow quicker at first, and are better to hoe; and, at present, have not discovered one disadvantage\*. But to proceed in my course:—I fold off my turneps with lambs I take in to keep, at 2s. 6d. per score per week; a good acre of turneps at that rate will bring from 30 to 40s. per acre, inclusive of gates and time; as soon as I have put in my beans and pease, sometimes before, I sow barley or oats upon once ploughing; I find it preferable to twice or more; you saw the crops with that management, and allowed them to be good; I estimate the oats at between seven and eight, and the barley at six quarters per acre; I shim the barley and oat stubble the same as the wheat, and in the winter, dung the land as a preparation for beans†. The above plan I mean to pursue on the best land of both my farms, and I think I shall be able, by constantly having an intermediate fallow

\* This management of putting in turneps on a pea stubble without ploughing is capital husbandry, and does Mr. Bland great credit. A. Y.

† Winter dunging for beans is excellent husbandry; the reader would be indebted to Mr. Bland for the particulars of the practice—preparation of the dung—compost—proportions—turning—quantity per acre—when ploughed in—how deep—&c. &c. A. Y.

crop,

crop, to keep my land in a perfectly clean state; for my poor thin lands I have a different course.

When you desire to know my success of

1. Beans,
2. Wheat,
3. Pease and turneps.

I would never wish that beans should follow turneps, as they in general fail \*, but I did it in the instance you saw, merely to bring in my course of crops.

I have endeavoured to answer your several queries, and to explain to you my system of farming, and hope I have, in some measure, succeeded, but I have not the pen of a Young. You will be kind enough to excuse errors.

I have the honour to be,

With the greatest respect,

Your most obedient humble Servant,

WILLIAM BLAND.

\* This is remarkable, and highly deserves further explanation. I will fairly confess it is quite contrary to theory; for if turnep land when first ploughed breaks up whole furrow from the treading and kneading of sheep, and are eat off early enough in the spring, I should hold pricking in beans on that first furrow to be good management; but I never tried it, and, therefore, speak from theory. I wish Mr. B. would explain himself further on this point, since it is a curious one. A. Y.

REPLY



REPLY TO QUERIES CONCERNING  
THE PRICE OF WOOL, &c. &c.

(Continued from p. 524.)

III.

BEDFORDSHIRE.

Governor Pownall.

Everton-House, Nov. 17, 1788.

SIR,

CONFORMABLE to your desire, I send you an account of the present prices of wool, as the staple reckons it *in the casting*, that is, upon the whole of the three parts into which every fleece is stapled or cast, besides which three parts you must remember that there are the *locks* or *clags*, which the staplers sell to the blanket manufacturers. The account I send you is confined to the stapling, combing, and spinning business, in Bedfordshire, as carried on, to a considerable extent, at Potton and its neighbouring villages. You will find added to this account the number of yards spun out of a pound of wool, according to the different sorts of wool and different fineness of the spinning, which number of yards is placed in the same line in an annexed column to each sort of spinning. It is not for mere curiosity that I have done this, but as a foundation on which *to calculate the work done by the wretched poor* in proportion to their wages. I do

not here mean to impute blame to their employers, but to state a fact, but little attended to by our country gentlemen and legislators; which is, that our manufacture cannot be said to be beneficial to the country, if while it employs it doth not pay the labourers so as to find them bread—now attend to my calculation of their work:—For every yard of thread, or yarn, which they draw, the spinner must step nearly a yard back, and then a yard forward; so that where, for instance, the spinner draws 29,120 yards of yarn, she must have gone, backwards and forwards, 58,240 yards, or 33 miles\*, for which she is paid 2s. 8d.—now again reckon the shoes she must wear, and the cost of her wheel, and see what remains to live on.—This price of labour is so lowered that it can go no lower; and the stapler, comber, and master spinner, say they cannot continue to pay this. Here comes in point the case mentioned in my Tract, called *Live and let Live*. Our master manufacturers and merchants must either be content with less profits, so that the labourers may have a share sufficient to live on; or the business of the spinning must be done *by machines*, or the manufacture break up.

Your humble Servant,

T. POWNALL.

\* This apposite calculation sets the fact in a striking light; the observations are pointedly just. A. Y.

*Account of Yarn reeled upon a seven-quarter reel.*

	Pay to Spinner for			Whole Cost.		Number of yds in each pound.
	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	
<i>Fine Wool,</i> In cast, 11d. per lb. Washing, combing, and waste, 6d. Value in Jersey, 1s. 5d.	30	2	3	3	8	25,200
	29	2	1	3	6	24,360
	28	1	11	3	4	23,520
	27	1	9	3	2	22,680
	26	1	7	3	0	21,840
	25	1	5	2	10	21,000
	24	1	3	2	8	20,160
	23	1	1½	2	6½	19,320
	22	1	0	2	5	18,480
	21	0	10	2	3	17,640
	20	0	8	2	1	16,800
<i>Common Wool.</i> In cast, 8½d. per lb. Washing, combing, & waste, 6d. Value in Jersey, 1s. 2½d.	22	1	4	2	6½	18,480
	21	1	3	2	5½	17,640
	20	1	1	2	3½	16,800
	19	1	0	2	2½	15,960
	18	0	11	2	1½	15,120
	17	0	9	2	0	14,280
	16	0	8½	1	10½	13,440
	15	0	7	1	9½	12,600
	14	0	6	1	8½	11,760
<i>Coarse Wool,</i> In cast, 7½d. per lb. Washing, combing, & waste, 5½d. Value in Jersey, 1s. 1d.	14	0	8	1	9	11,760
	13	0	7	1	8	10,920
	12	0	6	1	7	10,080
	11	0	5	1	6	9,240
	10	0	4	1	5	8,400
	9	0	3	1	4	7,560
	8	0	2	1	3	6,720

O O 2

*Account*

*Account of Yarn reeled upon a yard-reel, called seven  
leas to the bank.*

<i>Fine Wool,</i> In cast, 11d. per lb. Washing, combing, and waste, 6d. Value in Jersey, 1s. 5d.	Pay to Spin- ner for			Whole cost.		Number of yds in each pound.
	d.	s.	d.	s.	d.	
	26	2	8	4	1	29,120
	25	2	6	3	11	28,000
	24	2	4	3	9	26,880
	23	2	3	3	7	25,760
	22	2	0	3	5	24,640
	21	1	10	3	3	23,520
	20	1	8	3	1	22,400
	19	1	6	2	11	21,280
	18	1	4	2	9	20,160
	17	1	2	2	7	19,040
	16	1	0	2	5	17,920
<i>Common Wool,</i> In cast, 8½d. per lb. Washing, combing, and waste, 6d. Value in Jersey, 1s. 2½d.	15	1	3	2	5½	16,800
	14½	1	2	2	4½	16,240
	14	1	1	2	3½	15,680
	13½	1	0	2	2½	15,120
	13	0	11	2	1½	14,560
	12½	0	10	2	0½	14,000
	12	0	9	1	11½	13,440
	11½	0	8	1	10½	12,880
	11	0	7	1	9½	12,320
	10½	0	6	1	8½	11,760
	10	0	5	1	7½	11,200

IV.

E S S E X.

*Rev. Mr. Onley.*

Stisted, Nov. 18, 1788.

S I R,

**I**N answer to your enquiry—I am informed that the price, this season, of the wool of *white-face* sheep, was from 9d. to 10d. and of *black-face*, from 10d. to 11d. per lb. A small quantity of a species of South-Down, fetched 1s. a lb.

In spinning and weaving, no more deduction, here, in price, per piece: but what is equivalent to the poor, they are stinted in the quantity delivered out, or lengthened, as to the time, in which such quantity is to be returned to the manufacturers; who are, at present, contracting their business, as much as possible.

Hemp and flax untried here. As to this year's crops, our wheat in quality is fair; in weight good; in quantity, rather thin. Barley, in quality, very indifferent. Oats, beans, and pease, very tolerable.

Respectfully yours,

C. ONLEY.



*Dr. Anton.*

SIR,

Gorlitz, July 21, 1788.

**I**N No. 50, of your Annals,\* I have read the extract of my letters; I could have wished them to be more interesting. Your favour of July the 3d I have received, and also that of the 17th, which I shall now answer.

1. Long woolled sheep, which we shear once a year, (such as we have in the Electorate of Saxony and the Lower Lusatia,) or coarse woolled sheep, such as are found in the woody parts of Upper Lusatia, one stone of it is sold from 6 to 8 thalrs\*.

2. Our woollen manufactures have fine wool enough for use, and for exportation of cloths to foreign countries.

3. We have not coarse wool enough in the Upper Lusatia, and receive that from Lower Lusatia and Poland.

4. The beginning of the Spanish (I believe, Andalusian) breed of sheep was in 1765; after that, the Elector sent a man into Spain in 1768 and 1778; in the last year he received 100 rams, and 200 ewes. From France we have received none.

5. The Spanish breed is kept absolutely distinct at Stolpen and Hohenstein.

\* A thalr is 3 s.  $\frac{7}{8}$  the stone of 22lb.

We have a very good and plentiful year; hot weather and rain alternately, fodder and hay enough; and all the crops healthy, but rye evidently intermixed with weeds of all kinds, cabbages excepted, in which we are disappointed, for the flies eat all off, notwithstanding the great rains.

We have, at present, a high price for all corns, viz. for wheat, the scheffel, 5 thalrs 12 groschen\*; rye, 3 thal. 6 gros.; barley, 3 thal. 6 gros.; oats, 2 thal. 4 gros.; pease, 4 thal.; buck-wheat, 2 thal. 4 gros.; the Turkish war, and the great exportation in Bohemia the reason; but the exportation is prohibited. Your *great* wheat is different to ours, but our white wheat seems to be the velvet wheat. The American cabbage will not rise, and remains a small crop; and the turnep-rooted cabbage (our Kohbrüben) does not well succeed. I have made a trial with beans in *heavy* lands; they are laid in rows, and are horse-hoed with our ordinary plough; turneps are sown in the furrows. In autumn I will try the method of dibbling wheat in this field, in the manner I have read in the Letters of the Bath Society: I will take the kind, called, by Linnæus, *tritic. composit.* which, with *tritic. spelta* and *polonicum*, are surely the best sorts, in every consideration.

I have made some remarks on your Annals, which, if you will permit me, I will send you, with

\* A shilling is 7 grosch.

many others on the Bath Society's Letters\*.

My horses will not eat potatoes.

In the Letters of the Bath Society, I read that the cabbages give a bad taste to the butter; this is impossible, as our best tasted butter is at the time when the cows eat cabbages; hence all our œconomists make the leaves of cabbages dry for the winter time, or making fourcrout.

But I will conclude my letter:—Our harvest began so early as the 14th of this month, and every second or third day we have rain!

I am, Sir,

Your obliged and obedient Servant,

ANTON.

## VI.

## K E N T.

*Mr. John Boys, of Betshanger.*

S I R,

Betshanger, Nov. 19, 1788.

**I** SHOULD have answered your letter sooner, but waited to get information from Mr. Bوندock, of Sandwich, relative to the manufactures, being myself totally unacquainted with that business.

\* The communication of these remarks will be a great favour.

A. Y.

The

The price of wool at last shear time, in this neighbourhood, begun at 8l.\* and 8l. 5s. per pack, and is now got up to 8l. 15s.† The sheep of this country are mostly of the Romney Marsh breed, long wool;—what little fine wool we have comes from the South Down sheep, and that has sold from 11l.‡ to 14l.§ per pack. I have my growth now for sale, (about ten packs) samples of which I have enclosed to you; it is a mixture between the Romney Marsh and Mr. Bakewell's breed, and, I believe, finer long wool than any in this neighbourhood, but I cannot as yet obtain more than 8l. 15s. for it. I shall be much obliged for your opinion of the value of such wool.

The crops of all grain in East Kent this year are very short, owing to the extreme drought in the first part of the summer. Prices of wheat, from 40 to 47; barley, 20 to 22; oats, 16 to 20; beans, 20 to 21; boiling pease, 26 to 28; hog pease, 23 to 25; measure, 8 gallons 2 pints per bushel, and 21 of those to the score. Lean Welch cattle, 4s. to 4s. 3d. per score; two yearling wether sheep, 26s. to 28s. each; Romney Marsh lambs, 12s. to 14s. 6d. each; fat beef, 6s. 8d. per score; mutton, 7s. 6d.; and pork, very dull at 6s. per

\* 18s. 8d. a tod.

† 18s. 8½d. a tod.

‡ 25s. 8d. a tod.

§ 32s. 8d. a tod.

score,

score. I do not rightly know the value of hay, but I believe it is worth about 2s. per cwt.

Your humble Servant,

J. BOYS.

*P. S.* Labourers are scarce here. I have lately advertised in the County newspaper for men to dig up madder, and to do other husbandry work, but have not as yet got any by that means, although it was several weeks since.

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The price of spinning woollen yarn is, for *linseys*, from 3d. to 4d. per lb.; a good spinner will earn from 6d. to 10d. a day; for Bath coating, from 3d. to 6d. per lb.; earnings about the same. There has been no woollen yarn spun in this part of Kent (except worsted at Canterbury) till Christmas last, no alteration in the price since, nor likely to be any.

The Parliamentary bounty can have had no effect on the growth of hemp or flax, in Kent, no bounty has been paid; it was claimed by four growers from Sandwich, at the quarter-sessions in Canterbury, in October 1783, since which time no satisfactory answer has been got upon the business\*.

\* This is a pretty sort of bounty, the forms of which demand five years for ascertaining the rights of claimants: I have received similar complaints from various other quarters—such bounties are farcical, if meant really to promote the culture. As to this ridiculous one, it has not even the merit of ascertaining the growth.

A. Y.

I am



## AGRICULTURE. 555

I am now making out the different claims for the bounty, which, I suppose, will amount to upwards of fifty pounds.

The present price of undressed flax is 6l. or 6l. 10s. per pack, which is 60 stone, of 4lb. each, making 240l.; dressed flax is now sold from 9s. to 12s. per dozen; the price of spinning linen yarn is 400 rounds on a two-yard reel for one penny; let the quality be fine or coarse, the price of spinning is the same, no abatement; a good spinner will earn 6d. per day; this has been the price for a great number of years.

Hemp, little grown; what is used, in Kent, for cordage, fishing and other lines, twine, facking, &c. is St. Petenburgh or Riga hemp; the present price is from 34s. to 40s. per cwt. mostly bought at London.

J. B.

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### VII.

## STAFFORDSHIRE,

*Mr. William Pitt.*

SIR,

Pendeford, Nov. 20, 1788.

THE price of wool, of the last shearing, in this country, as near as I am acquainted with it, was as follows:

Combing,

Combing, of the Leicester or Cotswold breed, 18s. to a guinea per tod of 20lb.

Cloathing, from Cannock-Heath and the Commons of Shropshire, 1s. to 1s. 6d. per lb. ; the latter price including only the Common of Morf, near Bridgnorth, Shropshire.

The spinning done in this country is very trifling, at least so far as I am perfectly acquainted ; the price rarely subject to fluctuate ; an industrious spinner at wool, hemp, or flax, can get 6d. per day, at hurds, 8d. or more.

The woollen manufacture in Stourbridge, Worcestershire, is considerable, and I believe flourishing ; many jennies are employed.

Respecting the state of crops last harvest, the complaint was pretty general of wheat being thin on the ground ; barley, oats, and pease good ; the present prices in Wolverhampton market are, new wheat, 6s. 4d. to 6s. 8d. ; old ditto, 6s. 8d. to 7s. ; barley, 3s. to 3s. 6d. ; new oats, 2s. to 2s. 4d. ; old ditto, 2s. 6d. per bushel of 9½ gallons, though wheat is almost universally sold by weight, 3 bush. weighing 220lb. bag included.

I am of opinion that the quantity of hemp and flax grown in this country is but little influenced by the bounty, having been informed, by growers, that the trouble of applying repeatedly to sessions is equal to the amount of the said bounty, even upon a considerable quantity ; have myself more  
than

than once grown near an acre of each, but never thought the bounty worth applying for\*.

The principal objection to growing hemp and flax, in any considerable quantity, (supposing the occupier of land is allowed to grow it by his covenants, which, however, is rarely the case,) is the difficulty of getting through the operations of pulling, storing, watering, &c.—common workmen not being in the habit of doing it, the consequence to the common farmer is, that every operation lays him in more expence than it ought, and the work, very likely, not properly done; if to this be added the risk of losing the seed by vermin and casualty weather, which I think much greater than in corn; it will, perhaps, follow, that the nett profit of hemp and flax, to the common farmer, is inferior to that of wheat and barley, more especially in populous countries, where corn has generally a near and ready market, at a good price.

I am, Sir,

Your humble Servant,

W. PITT.

\* Such are the legislative encouragements of our agriculture.

A. Y.

## VIII.

## SCOTLAND.

By ———, *near Dumfries.*

THE public will be much indebted to Sir John Miller, if he can bring, what has been so often attempted in vain, to a happy issue, a general standard of weights and measures.—The want of such standard makes it very difficult to give you, accurately, the prices in Dumfrieshire; I have therefore given you the weight of their measure, the peck, in wheat, barley, and oats, that you may compare the prices with those of Suffolk.—The peck of wheat, weighing 43lb. sells from 4s. to 4s. 6d.; the peck of barley, weighing 50lb. sells from 2s. 4d. to 2s. 6d.; the peck of oats, weighing 40lb. from 1s. 8d. to 2s.; the peck of wheat is level; of barley and oats, heaped measure.—Potatoes sell from 1s. to 1s. 6d. the bushel; beef, from 4d. to 5d. per lb.; mutton, 4d. per lb.; veal, from 3d. to 4d. per lb.; lamb, from 3d. to 4d. per lb.; pork, from 3d. to 3½d. per lb.; a fowl, from 8d. to 10d.; a pair of chickens, from 6d. to 8d.; a dozen of eggs, from 3d. to 4d.; butter, from 8d. to 10d. per lb. of 24 oz.—Smeared wool, from the high lands of the county, and from what Cully, on Live Stock, calls, the long breed of sheep,

sheep, sells from 7 to 8s. per stone; the wool, from the low lands, not smeared, and from what the country people call the mug breed, which is a cross from Bakewell's and Cully's with the country breed, sells from 10s. 6d. to 12s. per stone—both kinds are chiefly carried to Kendal.—There is no public manufacture in this part of the country for wool, but a considerable domestic one, as all over Scotland; every housewife and family spin; has the yarn wove, dyed, &c. &c. at her own expence; having clothed her family, she sells the overplus. The linen manufacture is also very much in this domestic style. These innocent manufacturers form no combinations against the landed or any other interest; they reap the moderate fruit of their labour, and complain not. Could you increase their profits, perhaps they might learn to complain. Common day labourers, when fed, have, men, 8d.; women, 3d. When not fed, those, 1s. thele, 7d. Oatmeal their chief food; tea but little in use. The wages of a good ploughman, when fed, is 8 guineas; when not fed, 12 guineas, per annum. The latter has, besides, 2 quarts, per diem, of skimmed milk.



SHEEP CONTROVERSY BETWEEN  
MESSIEURS CHAPLIN AND BAKE-  
WELL.

ON my return lately from France, I found there had been, during my absence, a pretty hot controversy between these celebrated breeders, concerning the merit of their respective race of sheep. The news gave me much satisfaction, for I saw at once, that *whoever lost* by the dispute, the public must inevitably gain. It is certainly a fact, that will every day become more clear, that no question, upon which there is a great diversity of opinion, can ever be thoroughly understood but by means of opposition and contest. If ever there was one that should seem at first sight to rest on very different ground, and to demand experiment alone, it would be the comparison of two animals, but even in this point, which certainly can be ultimately decided in no other way, experiment *alone* will do little. The *mode of making the trial* must be ascertained by previous reasoning; and consequently admits every variety of opinion; for if the comparison in this or in any other doubtful case is made in a manner not entirely satisfactory, the result will be generally questioned, and the public fail of that compleat conviction which is always so highly desirable.

For

For this reason it is to be hoped, that should the present controversy produce any experiments of comparison, the principles on which they are to be made, and the circumstances to be attended to, may be thoroughly investigated and ascertained.

With this view I insert the following letters : there are some little heats apparent in them, which may serve to convince the reader that the parties are really in earnest, and do not trifle with the public ; but as this is sufficiently ascertained and generally known, it is to be wished that, in future, it may be a business of as much good humour as a contrariety of interests will allow.

I should have been better pleased with them if they had been free from heat and asperity—controversialists are very apt to run into personalities, but nothing is more foolish. The world, taken in general, is ever well pleased with it ; but the world is as mischievous an animal as a boy who sets two dogs together by the ears, and when they have well worried one another, throws stones at them both. When men of talents differ in opinion on such a question as the present, their first great object should be to propose such measures as should ascertain, in the most unequivocal manner, which is really the best breed—on what soils—with what food—under what management—and in what respects ; taunt and raillery and reflections will do nothing towards this.

*To Mr. BAKEWELL, Dishley, Leicestershire.*

SIR,

THE extraordinary art made use of in the exhibition of your stock at Dishley, points out, in the strongest manner, the impropriety of shewing it in a disorderly state; and, after my refusal of the 21st instant, to let you see my sheep before they were collected and sorted at home, I did not expect to hear of you meanly sneaking into my pastures, at Wrangle, on the 24th, with two other people, driving my sheep into the fold, and examining them.

Such unwarrantable conduct can only be accounted for by your very great anxiety about the shew of rams at Partney, near Spilsby, on the 18th of September, which was proposed for the purpose of making the comparisons, between those bred from your sheep, and the original breed of this county. The small sheep that have no cross of the Durham kind, which you have had the address to impose upon the world, without size, without length, and without wool, I have always held to be unprofitable animals; but that I may not appear to be too tenacious of my own opinion, I hope you will produce them at Partney, on the 18th of September next, to meet the Lincolnshire sheep, where there will be many bet-  
ter

ter judges than ourselves, to decide on their merits, which will be a satisfaction to

Your humble Servant,

(Signed) CHARLES CHAPLIN.

Tathwell, near Louth, Lincolnshire,

August 26, 1788.

*To CHARLES CHAPLIN, Esq; Tathwell, near Louth,  
Lincolnshire.*

S I R,

ON my return home on Tuesday last, I saw your letter addressed to me of the 26th of August, in the Leicester paper of the 6th inst. in which you are pleased to notice the extraordinary *art* made use of in the exhibition of the stock at Dishley; which you have seen at several different times. Surely you cannot say you have observed any unfair practices, or that you was ever denied seeing what was not engaged for the season, on account of their not being sorted, or being in a disorderly state.

At Horncastle, on Thursday the 21st of August, I asked you if I might see your rams near Saltfleet. You did not say I should not, but that they were not sorted, and that when they were you should be glad to see me at Tathwell. I did not go to Saltfleet, but into the marshes, near Skegness; and from thence, on the Saturday afternoon following, to Wrangle: the next day, Sunday the 24th, to Freeston, where I met with two graziers

with whom I had not any acquaintance till that day. They proposed on Monday to go to Skegness, and asked me if I thought they could see your rams. I told them I was informed on my way to, and at Wrangle, that they might. We set forward together, and called at the inn at Wrangle, which I came from the day before, and there passed what you are pleased to term, my "meanly sneaking into your pastures on the 24th."

We asked a young man if you had any rams there, he informed us you had. "Where are they?" "In the close next the house." "May we see them?" "Yes." "Who would shew them?" "I will." From which we supposed he had frequently shewn them to others. We then alighted and went into the close; *he* opened the pen-gate, and we assisted him in driving them in: about fourteen in number. The age or breed of any of them I do not know. From thence we went to the person who has the care of your rams, about a mile and a half nearer Skegness, and asked if we could see them; he refused us, saying, he had received orders by a letter from you, not to shew them to any one. He was then asked if they had not been shewn before. He answered they had. "When did he receive the order not to shew them?" "On Saturday night last." Had we known this before, we should not have been guilty of what you term, "such unwarrantable conduct."

I have



I have long made it a rule not to find fault with another person's stock. Why should you be so severe upon mine? And I now take the liberty of requesting you to explain what you mean, "by sheep without size, without length, and without wool," which you say I have had the *address* to impose upon the world; and of informing you that I am fully persuaded there are ten rams without a cross of the Durham, or any other kind, let for a thousand guineas more this season, than the same number of the "true old Lincolnshire breed, of the long staple," some of these at *the highest prices*, into the counties of Lincoln and Nottingham; and to breeders, many of whom have used the Dishley sort of sheep for upwards of twenty years; and who have agreed for some, and offer higher prices for others, for future seasons, than they have yet given; and may surely be supposed capable of judging of the value of what "you have always held to be unprofitable animals." Did they not find their interest in so doing, would they persevere? The *address* must be extraordinary indeed, that could impose upon them against their interest and so long experience.

Give me leave to ask, Sir, had you such sheep, would you, at this time of the year, incur the expence and run the hazard of sending them eighty miles from home, to gratify the curiosity of the breeders in this neighbourhood.

If you are still desirous of a public exhibition, please to say if you would chuse to send on the 5th of July next, to Lincoln and to Leicester (as there is a fair at both places on that day) two Rams of the "true Lincolnshire long staple" to each place, to be shewn against the same number of the Dishley sort, weighed alive, killed, and an exact amount given of the carcases and offals, for the information of the public.

I am, Sir, your humble Servant,

ROBERT BAKEWELL.

Dishley, near Loughborough, Leicestershire,

September 12, 1788.

Tathwell, Sept. 19, 1788.

*To the GENTLEMEN who attended Partney Fair on  
the 18th of this Month.*

GENTLEMEN,

IT is unnecessary for me to say any thing about the shew of sheep yesterday, but as Mr. Bakewell and myself, after having attempted in your presence to agree upon an experiment, likely to give to the public a fair insight into the comparative merit of our respective breed of sheep, parted yesterday, under an agreement to meet this morning at Sir Joseph Banks's, and there finally to settle the business; it is proper I should give you an account of the result of that meeting.

Mr. Coke, of Norfolk, Sir Joseph Banks, and several gentlemen, whom Mr. Bakewell had brought

brought with him, were present ; when, after some previous conversation, I made him the following offer, as a fair modification of the proposal made by him to me in the General Evening Post of Tuesday the 16th instant.

## O F F E R.

To shew at Midsummer next, two Rams, of my own breed, and my own property, with their wool on ; to have them shorn, and then killed ; and to have their fleeces, mutton, tallow, and offal, weighed separately, on condition that I should name the sheep now—and that Mr. Bakewell would also now name two Rams, of his own breed, and his own property, with which he would meet mine, and which he would subject to the same experiment at the same time.

To this proposal Mr. Bakewell declined giving any answer : but he seemed inclined to close with a similar one, provided he should be allowed to produce such Rams, as between now and Midsummer next, he might be able to procure ; and he said, that I had the same opportunity as he had, to search all England for the best that could be got.

In which, knowing that your enquiries chiefly pointed at a comparison between the Lincolnshire and Leicestershire breed, and unwilling to shew against all England, as in that case, Rams of my own sort might be brought in competition with

me, I positively refused my acquiescence ; a refusal, Gentlemen, I hope you will think me justified in.

And now I take leave to say, that as, on several occasions, in which I have had an opportunity of observing Mr. Bakewell's conduct, it has not, in my opinion, been bounded by that rigid line of propriety, with which I have ever earnestly endeavoured to circumscribe my own, I think myself at liberty to decline all further controversy with him ; and unless he, or some of his people, are again caught sneaking into my pastures, to examine my unsorted stock, or doing some other thing of similar impropriety, he may rest secure from being again either publicly addressed, or answered, by

Your most obedient Servant,

(Signed) CHARLES CHAPLIN.

*P. S.* If any one wishes to be satisfied of the comparative merit of the Lincolnshire and Leicestershire wool, let him enquire at Leeds and Wakefield ; and at Smithfield he may learn, from which county the best sheep for mutton are sent.

*To CHARLES CHAPLIN, Esq. Tatbwell, Lincolnshire.*

S I R,

YOUR letter of the 19th of September, addressed to the Gentlemen who attended at Partney, I should have noticed sooner, but that I waited for  
some

some information relative to what Rams you have had from this county; a business you always appeared to transact in the most private manner.

On the 25th of August, it is true, I went into a piece of rich grazing land, next to a public-house in the town of Wrangle, and there saw fourteen Rams, which I understood had been shewn before to any one who asked to see them; therefore, I could not consider them as unsorted, or in a disorderly state. This did not arise, as you are pleased to state it, from any anxiety of mine about the Shew of Rams at Partney, with which I never intended to have any concern; though probably it might cause your anger, lest I might have discovered how those were bred which were intended for that exhibition.

For this *heinous offence*, in your first letter, you severely condemn my sheep; in your second, hint at my character, and compliment your own. Your manner of noticing my conduct and stock, I consider as a very fortunate circumstance, as it gives me an opportunity of making some remarks on yours, for which I should otherwise have wanted an apology. I shall take the liberty of asking you the following questions, to which, when I have your answers, I will lay before you and a candid public, the conditions on which I will meet you at *Lincoln, Leicester*, and as many other county towns as you please. I conceive that you and I shewing two  
Rams



Rams each, without saying how they were bred, and which on this account might not do any business this season, and be highly fed nine months for the purpose of shewing at *Lincoln* only, can throw but little light on this important subject, and be of small consequence towards ascertaining the merits of the true old *Lincolnshire*, and new *Leicestershire* sorts of sheep.

Why do you give your Rams any thing but grafs, hay, or turneps, in winter, or any thing but grafs in summer?

Why do you refuse to shew them, except at particular times? mine that are not engaged, you may see any day in the year, Sundays, and the first seven days in June, excepted: when may I be favoured with a sight of yours?

Why, at a time when Shearlings are let at such high prices, and Lambs are now letting at still higher, for the next season, do you *shew* or *let* so few of that age?

Why, when Rams are let so high, and sixty Ewes descended from this stock, were sold by auction the 14th of Sept. 1787, at more than five guineas each, and some of them into the county of *Lincoln*, and many Drape or Cull Ewes have since been sold at much more, do so many of yours of both sorts go to market?

Why are they not rather bought to breed from, when they may be had at a butcher's price?

Why

Why do so many of the Lincolnshire Breeders, who will give the best prices, go into other counties for their Rams?

Why do you, who have formerly sent so many Rams into this county, now send so few—if any?

Can you inform me of any of the Leicestershire Breeders, who will shew Rams at this time, and say they are of your kind?

Since the time when five of your Rams were advertised to serve Ewes, in as many different places, at half-a-crown each—a Ram, bred in your county, son of a Leicestershire Ram, has been advertised in your neighbourhood, to serve Ewes at a guinea each! Have the prices of yours advanced in the same proportion?

I have not used any Lincolnshire Rams for twenty years past:—why have you at different times from the year 1773, to 1786, hired from this county?

Why did you in the year 1783, *buy four*, besides what you hired? If you had not found an advantage in this, who could have address enough to impose such upon you, and induce you to continue the practice for so many years? If such as you have had from this county have improved the good old Lincolnshire Sheep, some think you had not a cross before it was wanted; and that some of the Rams you shewed at *Partney*, were descended from  
the

the Leicestershire kind.—Can you prove the contrary?

Can any one after this be at a loss to know what the Leicestershire Breeders think of Lincolnshire sheep, and *you*, of those which *you say*, you, “have always held to be unprofitable animals.” If you have not more of this sort, do not take more pains in handling those you choose, and pay a little more attention to the CARCASE than you have hitherto done; beware, that (notwithstanding all the art you can make use of, *feeding*, in *shearing*, and *dressing*)—some of your spirited and unprejudiced neighbours, do not cause you to go out of the RAM BUSINESS—in the same manner as you have represented me going into your pastures at WRANGLE.

I am, Sir, your humble Servant,

ROBERT BAKEWELL.

Dishley, Nov. 19, 1788.

Tathwell, Dec. 3, 1788.

To the EDITOR of the *Annals of Agriculture*.

SIR,

I Have sent you my letters to Mr. Bakewell, and the Gentlemen at Partney, as they were originally sent to the press, but were in a line or two wrongly printed, I have no objection to your inserting them in the *Annals of Agriculture*; but let Mr. Bakewell write or puff as he pleases, I shall  
never

never think of answering \* a man, that shrinks from his own proposals,

I am, Sir,

Your most obedient humble Servant,

CHARLES CHAPLIN.

IN regard to the immediate controversy between Mr. Chaplin and Mr. Bakewell in this stage of it the only object that deserves a moment's consideration is, how an experiment may be best made that shall give mutual satisfaction? Upon one great object the parties are agreed, viz.—that the trial rams shall be weighed alive; sheared; killed; and their dead weight examined; to discover the proportions of profitable meat and offal. That is a most important object, and very glad am I to find that they are agreed on a point so essential as this.

In the choice of the trial rams, there is a good deal of ambiguity in the correspondence; Mr. Chaplin refused to shew against rams not named at the time of agreement, intimating an apprehension

\* I had the pleasure of hearing from Mr. Bakewell on this subject, as I did not chuse to insert these papers without acquainting both the parties; Mr. B. thinks them better not inserted till Mr. Chaplin's answer appears, but as he intimates here an intention of remaining silent, that reason does not operate.

A. Y.

that

that he might have a Lincoln breed brought against him: Mr. Bakewell, on the other hand, retorts the suspicion, and insinuates, that Mr. Chaplin's best rams are Leicester crosses: this difficulty must certainly be done away before any trial; the enlightened and candid part of the public will concern themselves very little about Chaplin or Bakewell; but very essentially on the breeds of their sheep: it is not a question between Charles and Robert, but between Lincoln and Leicester rams: and under those titles, what the parties themselves understand by them, as explained in their own letters; by Mr. Chaplin, in the expression "the original breed of Lincoln that have had a cross of the Durham;" and Mr. Bakewell, by that of "the new Leicester;" by which terms Mr. Chaplin is certainly precluded from the Leicester breed; and Mr. Bakewell equally from the Lincoln. As to the place of the experiment, it must certainly be equally convenient for both.

But another object remains hardly yet touched on; and that is the *preparation* of the rams—on this point I beg leave to remark—that merely knowing the weight and proportions of a ram would not be altogether satisfactory, I have made some experiments which inform me, that a Norfolk sheep eats more than a South Down one, of the same weight, and to arrive at the same degree of fatness; how does any one know that there may not be the  
same



same distinction between Lincolns and Leicesters : there certainly *may not* be such a difference, but no person can satisfy one of the *fact*, if the experiment is not made : I shall beg leave, therefore, to observe, that if these gentlemen are really and truly serious in their opinion and belief of the merits and superiority of their respective breeds, they will submit to some such proposition as the following.

To send the trial rams to the farm of a third indifferent person, to be kept a given time, on given foods, and then killed and compared.

Suppose them agreed so far on the outline, still there are other previous points in question.

What rams are to be tried? By a passage in one of Mr. B's letters, he implies, that his lambs and shearlings have an advantage over Mr. Chaplin's, who seems from thence to aim at a fuller aged ram. Opinions may differ on such a point—both may, in certain circumstances, be right ; but the trial may be planned in such a manner as to answer all the questions that can thus arise. Suppose lambs of six months are at present put to such a trial, they should be weighed again as soon as Mr. Bakewell demanded ; and, kept as long as Mr. Chaplin chose. I think this would, at the *conclusion* of the trial, ascertain the *progress* of it ; though not so perfectly as distinct experiments would.

What should be their food ?

Here

Here would, perhaps, rest the great difficulty ; in winter they should, beyond all question, be stall fed, because their turneps, cabbages, or hay, might be weighed with the greatest accuracy. In summer, if stall feeding on mown lucerne, clover, or grass, should not be approved, spaces might be fenced off with five or six feet hurdles and portions given as eaten, along-side each other and absolutely equal ; but the accuracy would not equal stall feeding.

If stalled, the house wherein kept, might be under three locks, a third person to have the key of one, Mr. Chaplin's feeder another key, and Mr. Bakewell's a third : this, under the supposition that those gentlemen wished for such checks. By this method it would be impossible for any food to be given to either lots, without all the three parties seeing, and registering it.

Upon these terms it would be one of the best experiments ever tried ; but I should earnestly hope, that the person who conducted it would take care and halve equal lots of Norfolk, South Down, Wiltshire, Dorset, and Cotteswold rams, of the same age, and fed exactly in the same way : —Such rams to be chosen by able sheep-masters, in the respective counties.

I think I may answer for my neighbour, Mr. Macro (than whom a more careful and attentive experimenter does not exist) undertaking the conduct

duct of such an important trial: I name him, because I think the public at large, would be better satisfied with the experiment, if made far from Leicester or Lincoln, and amidst a quite different breed, than if near the home of either party. But as that gentleman could reap no sort of advantage from the result, it would be necessary to indemnify him for the expence of it: a great object and worthy of public attention; but this is not a country to look for public money to do any thing but mischief; a private subscription I should think might without great difficulty be effected for the purpose.

It greatly behooves these celebrated breeders to consider well of some method of satisfying the public at large, at whose bar they have both appeared, that they really have that confidence in their respective breeds, which they have both openly asserted.

A. Y.

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REPLY TO QUERIES CONCERNING  
THE PRICE OF WOOL, &c. &c.

(Continued from p. 559.)

IX.

G L O U C E S T E R S H I R E,

*Rev. Mr. Swayne.*

Dear S I R,

THE price of wool, of the last shearing, in this neighbourhood, has been generally 19s. per

VOL. X. No. 60.

Qq

weight

weight of 21lb. that of Mendip wool 1l. 1s. No alteration has taken place in the wages or price of spinning within the times you mention. In the Gloucester Journal, published the 25th of August last, appeared the following paragraph, which, if not copied in some of the London papers, you probably have not seen. I therefore transcribe it for your perusal and comments. "On Thursday last, Thomas Joiner, of Longhope, in the county of Gloucester, was convicted in the sum of 9l. being the penalty of 2s. the fleece on ninety fleeces of wool, which he had sold, unfairly wound, to Messrs. Panter, Wood, and Lloyd of Ross, in violation of an Act of last Session of Parliament. It is hoped that the easy and expeditious mode of convicting offenders against the above statute, will, in future, deter every one, concerned in the winding of wool, from such iniquitous and deceitful practices. There were some other farmers who deserved similar punishment; but they are passed over till the next fair\*."

Wheat has been good this year; oats tolerably good; barley but indifferent, particularly that which was sown late, owing to the dryness of the weather, at a long time after the sowing. Why will not the farmers in general, in such seasons,

\* Here is the infamous wool-bill in full operation! I have written for further intelligence, and hope to hear the particulars of this affair. A. Y.

adopt the practice recommended in the Bath Society's Memoirs, of soaking their seed barley in water? I believe this has never been practised but with beneficial effects. Potatoes have been in most places, in this neighbourhood, a tolerable crop. Turneps, excellent.

Wheat sells, at present, at about 2l. 12s. per quarter.

Barley, 1l. 6s. ditto.

Oats, 1l. ditto.

Potatoes, 2s. 9d. per sack, of 4 bushels.

Beef, at 36s. per cwt.

Mutton, 4½d. per lb.

Veal, 6d. ditto.

Pork. 4½d. ditto.

Hay, 3l. per ton.

The parliamentary bounty on the growth of hemp and flax has had, as yet, no effect in this neighbourhood.

I am, Sir,

Your very humble Servant,

G. SWAYNE.

Pueklechurch, Dec. 3, 1788.

---

L A N C A S H I R E.

X.

*Charles Mordaunt, Esq.*

S I R,

**O**N enquiry I find the price of wool a shilling the pound; a total revolution in spinning has

Q q 2

happened



happened in these parts, the water engines make such fine level threads; spinning, by hand-engines, is entirely abolished; we have little or no connection with the woollen manufactories.

Last year's crops of corn, potatoes, hay, &c. were very plentiful, except the beans, which suffered by a dry spring and succeeding rains.

The prices of sheep and oxen are fourpence-halfpenny per pound; you know those animals sell for their weight; a horse for his value, not his size or weight; the breed, in common use here, is the Leicester black Garron, bought at fairs, at about ten pounds; these the farmers cover with the travelling race-horses, and in two generations get a good road horse of twenty or twenty-five pounds value.

Corn and hay are at their usual prices, but there is a very considerable import of American flour selling by retail, for less by one-third than our own flour; this article may, in time, create some great discontents among the farmers.

As to hemp and flax, spinners, hereabout, had some of the material given them, after harvest, to make, what they term, Polday, for the Warrington sailmakers; at present they refuse sending them any material, having little demand for their sails; this, I fancy, is the effect of the Negro Act, at present depending; it has already done infinite mischief to trade in general, divided and subdivided

divided into a vast variety of branches ; it would require a volume to investigate the subject ; I shall only observe, the abolition of that trade will certainly be attended with the most dangerous consequences ; a general revolt of the islands, is the least we may expect. Plausible men often first delude themselves, and then, from mere caprice, endeavour to delude other men, applying to the passions or weakness of their converts, artfully avoiding all solid argument ; these are dangerous men, and Government cannot be too wary of their influence.

The present state of our markets.

Wheat, 6s. 8d. to 7s. per measure of 9 gallons,

Barley, 3s. 4d. to 3s. 6d. per ditto.

Oats, 2s. to 2s. 3d. per ditto.

Potatoes, 1s. to 1s. 2d. per ditto.

Hay, per stone of 20lb. 5d. to 6d.

Cheese, per cwt. 28s. to 33s.

Butter, per lb. 8d. to 9d.

Pork, per cwt. 35s. to 40s.

Beef and mutton, per lb. 4½d.

Coal by the canal, 6s. 8d. per ton, of 20 cwt.

Flour at the mill, 34s. 6d. per sack.

Bacon, per lb. 7d. to 7½d.

Alchouse beer, 4d. per quart.

C. MORDAUNT.

November, 1788.

## XI.

*Mr. Thomas Bernard.*

S I R,

YOUR favour of November 6, came in due course: the price of wool this year's clip, has been rather higher than last year: fleeces of nines and tens, to the weight of 31lb. from 24 to 26s. per weight; those of from 11 to 14 to the weight, from 26 to 28s.; average 27s. I know of no particular alteration in the prices of spinning lately, and the principal circumstance relative to the woollen manufactory at Romsey, is, that it is in a very declining state, being in a manner gone from the town, so that there are a number of weavers out of employ, for want of work.

The wheats last season, in general, thin on the ground, owing to the extreme drought, as was the case likewise with the barley, near half of which, in a number of places, never came up till the other was coming into ear; in general, a very ragged, sorry crop, and thin in body. The present prices of wheat, per load 9 gallons, 12l. 12s. barley, per quarter, 27s.—both stock and full-mouthed ewes sold well at Weyhill fair, from 20 to 24s. a head; Dorset ewes, from 24 to 30s. Lambs, from 12 to 16s. cull lambs, from 7 to 10s. a head;

a head; since Weyhill there has been a fall on sheep, at Andover and Allesford fairs, about 2s. a head. The Parliamentary bounty on the growth of hemp and flax, has not any effect in promoting the growth of these articles in this neighbourhood; I query whether there is any, or at most not half a dozen farmers that frequent Romney, Andover, or Winchester markets, that know there is any encouragement offered for the raising of those commodities: The price of hemp at Southampton, where it is imported from Russia, is 37s. per hundred.

I am,

Your most obedient,

THOMAS BERNARD.

Mitchelmarsh, Dec. 2, 1788.

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XII.

*Lieutenant Colpnel Barker.*

Isle of Wight, Dec. 2, 1788.

Dear S I R,

I Should have answered your favour of the 25th of October, had I received an earlier information concerning the price of wool. I give it, as I received it.

“ The general price of fleece wool, of the clipping of 1788, in Hants and Wilts, per weight,

Q q 4

31lb.

31lb. to the weight, the middle from 1l. 6s. to 1l. 8s. ; some particular fine wool as high as 1l. 10s. and some as low as 1l. 4s. and 1l. 5s." My correspondent adds, " He never knew wool so high in price before."

In the island, the value (29lb. to the weight) is not yet properly ascertained, but seems to be from 23s. to 25s. per weight. No other particulars are added.

I hope you will give us something of your late excursion to the neighbouring kingdom. I shewed your tour through Spain to a friend, that had travelled thirty years ago, and he said your journal was very descriptive of that country and people.

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## HEREFORDSHIRE.

### XII.

*S. Palett, Esq.*

Dilwyn, Nov. 19, 1788.

SIR,

I AM honoured with yours of the 6th instant, and very readily comply with your wishes, in sending you annexed the prices of wool, corn, cattle, sheep, hay, &c. &c. in this county, during last summer and the present season.

The average price of wool clipped off the particular species of sheep, known with us by the  
name



name of Rylands, was sold this summer, at 20s. per stone of 12½lb. The next best quality of wool off sheep *not cotted*, was from 16s. to 18s. per stone. Of this sort my flock consists, which I am this autumn crossing with a Dorsetshire ram, with a view to add bone and size without injuring the staple of the wool.

Our crops last harvest were in general good, particularly pease.

New wheat sells, at 7s. per bushel of 10 gallons, at present, but I conceive when the weather obliges the farmer to begin threshing for the sake of fodder for his cattle, it will be cheaper. Pease sell from 3s. to 3s. 6d. per bushel of 10 gallons.

Barley from 2s. 8d. to 3s. ; this article I conceive will be lower, as our county this year abounds with cyder.

Oats, very few as yet seen in market; old ones are sold from 2s. to 2s. 4d.

Oxen at our late fairs have been sold well, if they were in good order. I turned off four from work in April last (seven years old) and sold them the 13th ult. for 19 guineas each, giving one guinea again; they were very forward in order, and are designed for Smithfield in the spring.

Bullocks at our last Hereford fair (the 20th ult.) sold brisk, there was a very fine shew, and all sold at good prices.

Cows,

Cows, (of which there are more fed in this county than in any other county in the kingdom) have been at high prices all this year. I have eleven now feeding in the stalls on turneps—Apropos—from two pound of the Tankard turnep feed, which I sowed the 18th of June last, on four acres, I have had stock sufficient to feed one great ox, eleven feeding cows, and five milking cows, from the 21st ult. to this time, and I conceive they will not be all consumed before Christmas.

Sheep are very dear, the best ewes for stock 16l. a score, and fat wethers, of the Ryland breed, from 18l. to 22l. the score.

Hogs, owing to the great quantity of acorns, are very reasonable.

Hay, very little sold. I have been offered some very good, at 40s. per ton.

Herefordshire this year has abounded with plenty, Pomona and Ceres have vied with each other, who should be most deserving of the husbandman's praise.

I have the honour to be, Sir,

Your most obedient Servant,

S. PALETT.

*P. S.* The price of spinning, the same as when I wrote to you last: the bounty offered for the growth

growth of hemp and flax, has very little effect with us—we consider both as exhausters of land, and return nothing to the dunghill—you will see our growth of both articles, in the Hereford Journal as certified by the Clerk of the Peace.

Pardon me in hinting to you the following experiment I am trying for spring feed for my ewes and lambs.

In June I sowed  $\frac{1}{2}$  lb. of coleseed in a seed-bed; August 22, ploughed up a piece of wheat stubble, 25th cross-ploughed it, 28th ridged it up, in two bout ridges, the next day being rainy, transplanted one acre, made the holes with a hop bar, and employed the poor children in my neighbourhood to put in the plants, under my own inspection. I have since had them once moulded up, and the whole piece looks very luxuriant and fine—of this, more in March next.

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XIII.

*Mr. John Jenkinson.*

S I R,

YOURS I received, in answer inform you, that the price of wool, in this neighbourhood, was nearly the same as last year, from 9s. to 10s. 6d. per stone of 16lb.; a few years ago from 6s. 6d. to 7s. 6d. Spinning of combed wool is fallen

fallen 1d. or 1½d. in the lb. within the last six months, occasioned, as it is said, by the invention of spinning worsted by water.

The manufacture of coarse woollen cloth, at Kendal, is very brisk, and coarse wool very high, from 5s. to 7s. per stone, which a few years ago was from 2s. to 2s. 6d. and scarce to be sold at any price. America is the chief market for Kendal cottons, as they are called. No wonder that coarse wool was so low the last war.

The crops, of all kinds, last year, in general, good. The average of Burton market, in Westmoreland, last Tuesday, wheat 48s. per quarter; oats 14s.; barley is not sold in the market, but privately, and is selling about 25s. per quarter.

Cattle, high; the great winter fair, at Kendal, held the 8th inst. was very brisk; sheep and horses never so high at any time.

Hemp was grown almost universally, in this neighbourhood, near forty years ago, from half a rod to an acre and a half a piece; but now there is no such thing, I do not know of one piece either of hemp or flax in the county last season.

Hemp was grown on one piece of land, every year, called a Hempland, and which had been sown with that article, annually, time immemorial. The opposition you made to the wool-bill last year, in my opinion, was right, and I am sorry that either  
ignorance

ignorance or prejudice should still possess the minds of men.

I am, with the greatest respect,

Your Friend,

JOHN JENKINSON.

Yealand, Nov. 20, 1788.

### CONCLUSION OF THE FIRST TEN VOLUMES OF THIS WORK.

**A**FTER five years attention to the printing of the Annals, the present state of the sale makes it necessary for me to venture some little remonstrance to the public; I have heard, that it has been reported, I make five hundred pounds a year by it; as I know not how far such ideas may spread, nor by whom they may be received, it is but justice to myself, to wish that the truth may be known; I cannot do this better than by stating the account of the last volume, viz. the ninth:

	<i>l.</i>	<i>s.</i>	<i>d.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Printer's bill - -	84	1	4	Sale 422 to Nov. 10	139	1	2
Stationer's bill -	70	8	0	Balance - - -	71	6	6
Plates - - - -	15	4	6				
Incidents, Mr. Nicoll	8	13	9				
Advertisements -	26	13	11				
Postage and carriage	5	6	2				
	<hr/>				<hr/>		
	£.	210	7 8		£	210	7 8

It



It is true, the expences on this volume ran higher than common: those of vol. viii. were only 151l. 1s. 10d. and the sale of it, to this time, amounts to 126l. 19s. 3d. consequently the balance against that volume is now only about 14l. Notwithstanding this unfavourable aspect, the sale of the early volumes would have more than answered these deficiencies, if it had not been for reprinting small impressions, of many numbers, merely for supplying sets, a business yet continuing as much as ever. About a year ago I thought I might have ventured on the die of a medal, for offering honorary rewards to the best papers, in each volume, to have been decided by the correspondents themselves, the expence of which, including all charges, would have been about 100l. This scheme I mentioned to some of the most distinguished correspondents, but they one and all condemned the plan, assuring me, that should I persist in it, they could not think of continuing to send me any papers, as they corresponded merely through a desire to serve the public, and wished to be free from the idea of any other motive; under the influence of this intimation I laid aside the intention. If it had not thus dropped, I should by this time have found such an expence considerably beyond what the publication would have paid, and particularly as I have found even the receipt of the product of the sale not altogether free from a precariousness I had no expectation of meeting with.

In

In such a situation, the sale is obviously short of what is necessary to place me even in a state of security. I am at all times under an engagement for a large sum for paper, print, &c. and any sudden decline of the work might leave me a considerable loser: the conducting of such a journal, to which I have given no slight attention, and contributed largely, demands at least, an exemption from any addition of fresh anxieties, to the decline of a life, chequered with disappointment and infelicity. I had hopes that the landed and farming interests of the kingdom might have had ideas liberal enough for the support of such a work, and that the expence of a few shillings or a guinea a year, would not have been a material burthen, for keeping open a repository, the mere existence of which is of itself valuable. If a discovery is made or any useful practice noted; these Annals are open for the reception, where they may be preserved for the benefit of posterity: The merit of such a plan is not to be measured merely by the contents of the month—it is a channel for the concentration of floating and desultory knowledge—and the reader has every probability, while such a work is regularly published, of having some intimation in it, of whatever improvements distinguish the agriculture of the age. To those who will with candour review the communications that have been received and published in it, I trust it will

will want no recommendation of mine ; there are many papers of great and genuine merit ; practices absolutely novel, yet of considerable importance, have been particularly described : The merit of others already known, ascertained with an accuracy, of which few traces were before registered ; and scarcely a practice in the art, but has received immediately or collaterally, illustration from the numerous and able correspondents that have honoured the work with their attention. Nor ought I here to omit observing, that the ideas entertained of it by foreigners, have been highly flattering to the gentlemen that have supported it : It is translated into other languages, published with applause, and has received the warmest commendations from various respectable quarters, both of the old and new world.

Thus circumstanced, it was natural for me to think that I might have expected a success, at least sufficient to secure me from the apprehension of loss, and the anxiety attendant on ardent, yet fruitless endeavours ; but while I indulged such fond persuasions, I forgot that the support I looked for, must come, if it came at all, from the LANDED INTEREST ; from that interest to whose service the work was peculiarly dedicated—the country gentlemen and opulent farmers of England were the people I was to depend on—those, in whose defence I had provoked a host of enemies, and reckoned

reckoned my foes, rather by counties than by numbers. When I looked for such support, it is sufficiently plain that I was ignorant of the character of those from whom alone it could proceed.

But to whatever may be owing the depression of the work, the continuance of it on such terms, is inconsistent with my scanty situation; I can run no great hazards; and therefore I have inserted this account of the publication, that if its friends will not exert \* themselves to extend the sale, it must soon drop; I will continue it to the last moment that any idea of prudence will allow, but when the profit of the early volumes ceases to make up for the loss upon the later ones, which threatens to be the case, the publication must necessarily cease. Though the termination of a work, which I wished might prove perpetual, would add

\* There are more ways than one, by which it is in the power of a landlord to spread such a publication among his tenants, who are the people that have it in their power to render the instruction they meet with, useful to his estate. That not the least effort of this sort is made at present, will appear by this circumstance: There are in the three kingdoms 117 counties, the present sale of the work does not amount to four to a county, from which four a pretty considerable deduction is to be made for towns, book-clubs, &c. the present purchasers, who are neither landlords nor tenants. If some landlords who thought the work useful, had strongly *recommended* it to their tenants—and if others, who warmly approved it, had *ordered* them to take it in, promising to allow the expence in their rent, this state could not have been just.

to my mortification, its continuance will add nothing to my profit, or I had not entered into this explanation with the public.

While I venture these observations, I surely need not add another, on which I have repeatedly dwelt on, that which results from corresponding with it, such of the nobility, gentry, and land occupiers, as have made observations that would be of use to others (and a man of any intelligence can scarcely farm without making such) have an obvious method, by which they can contribute to the support of the publication, should they think that it merits support.

A. Y.

Bradfield-Hall, Dec. 17, 1788.

A V E-



# A G R I C U L T U R E. 595

## AVERAGE PRICES OF CORN FOR NOVEMBER, 1788.

*By the standard Winchester Bushel of 8 Gallons.*

	<i>Wheat.</i>	<i>Barley.</i>	<i>Oats.</i>	<i>Beans</i>
London	5 4	2 7	1 11	2 7
C O U N T I E S I N L A N D.				
Middlesex,	5 5	2 9	2 1	3 0
Surrey,	6 7	2 9	2 2	3 6
Hertford,	5 6	2 10	2 0	3 6
Bedford,	5 2	2 8	1 10	3 0
Cambridge,	4 11	2 7	1 8	2 8
Huntingdon,	5 0	2 8	1 7	2 8
Northampton,	5 2	2 6	1 9	2 10
Rutland,	5 3	2 9	1 10	3 0
Leicester,	5 3	2 8	1 9	3 1
Nottingham,	5 4	2 6	1 9	2 8
Derby,	5 10	2 10	1 11	3 2
Stafford	5 9	2 10	2 0	3 7
Shropshire,	5 11	2 7	1 11	3 9
Hereford,	5 7	2 7	1 9	2 3
Worcester,	5 9	2 7	3 1	3 2
Warwick,	5 7	2 10	2 1	3 3
Gloucester	5 5	2 6	1 11	3 1
Wiltshire,	5 1	2 10	2 3	3 10
Berks,	5 7	2 9	2 3	3 3
Oxford,	5 6	2 9	2 3	3 3
Bucks,	5 5	2 7	2 0	3 3
C O U N T I E S U P O N T H E C O A S T.				
Essex,	5 0	2 5	1 11	2 8
Suffolk,	4 11	2 3	1 10	2 5
Norfolk	4 11	2 4	1 10	—
Lincoln,	5 0	2 4	1 8	2 8
York,	5 5	2 6	1 8	3 1
Durham,	5 3	2 5	1 8	3 7
Northumberland,	5 0	2 3	1 7	3 4
Cumberland,	5 7	2 4	1 7	3 4
C O U N T I E S				

## COUNTIES UPON THE COAST.

	<i>Wheat.</i>	<i>Barley.</i>	<i>Oats.</i>	<i>Beans.</i>
Westmoreland,	6 0	2 7	1 8	—
Lancaster,	5 10	3 2	2 0	3 7
Chester,	5 11	2 10	1 11	—
Monmouth,	6 1	2 6	1 8	—
Somerset,	5 9	2 9	2 0	3 8
Devon,	5 10	2 9	1 7	—
Cornwall,	5 9	2 9	1 9	—
Dorset,	5 6	2 9	2 2	4 0
Hampshire,	5 3	2 11	2 1	3 5
Suffex,	5 6	2 8	2 1	3 4
Kent,	5 5	2 9	2 2	2 8
Wales,	5 10	2 10	1 6	4 0
General average	5 5	2 7	1 10	3 2

LONDON PRICES OF CORN FOR  
NOVEMBER, 1788.

<i>Grain.</i>	<i>Quarters.</i>	<i>Price.</i>	<i>Aver. per Quar.</i>
		£. s. d.	£. s. d.
Barley,	28275	30985 2 4	1 1 9
Beans,	5982	6324 0 5	1 0 11
Malt,	12344	19700 6 7	1 11 11
Oats,	22818	17366 17 0	0 15 0
Peas	5912	8096 18 1	1 7 1
Rye,	740	808 7 7	1 1 10
Wheat,	28844	50630 6 11	2 2 7
	104915	133912 5 11	

COURSE OF EXCHANGE, FOR  
NOVEMBER, 1788.

Amsterdam - - 38 1	Leghorn, 47 $\frac{5}{8}$
Hamburg, - 34 2 2 $\frac{1}{2}$ U	Genoa, 44 $\frac{5}{8}$
Paris, - - - 28 $\frac{5}{8}$	Venice, 47 $\frac{1}{2}$
Cadiz, - - - 35 $\frac{1}{4}$	Lisbon, 65 $\frac{1}{4}$
Madrid, - - 35 $\frac{1}{4}$	Dublin, 8 $\frac{1}{2}$

GENERAL

## GENERAL INDEX

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FIRST TEN VOLUMES

OF THE

ANNALS OF AGRICULTURE.

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END OF THE TENTH VOLUME.









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